

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acenaphthene

CAS Number:

000083-32-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.4E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:	2.5E+00	days	HEDR
Biodeg:	1.0E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+00	days	THOMAS
Photolysis:	2.5E+00	days	HEDR
Biodeg:	1.0E+02	days	HEDR
Radio:		days	
Log Kow:	3.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.5E+02	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.1E-03	Torr	PHYSPROP
Henry's Law:	1.8E-04	atm-m3/mol	PHYSPROP
Water Solub:	3.9E+00	mg/L	PHYSPROP
Distrib Coef:	7.6E+02	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.8E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.8E+02		ECOTOX
Salt BCF:			
Log Kow:	3.9E+00		EPI_EXP
Water Solub:	3.9E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.3E+01	°C
Boiling Point:	2.7E+02	°C
Formula:	C12H10	

CLASS INFORMATION

Parent Substance



189162

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

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06/20/2014

Chemical: Acenaphthene

CAS Number:

000083-32-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.2
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 3.9E+00
Distrib: 7.6E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 1000

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acenaphthylene

CAS Number:

000208-96-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.7E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:	6.0E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:	6.0E+01	days	HEDR
Radio:		days	
Log Kow:	3.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.5E+02	
Density:	8.9E-01	g/mL @ 16.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.6E-03	Torr	PHYSPROP
Henry's Law:	1.1E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+01	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.9E+00		EPI_EXP
Water Solub:	1.6E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.2E+01	°C
Boiling Point:	2.8E+02	°C
Formula:	C12H8	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acenaphthylene

CAS Number:

000208-96-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility: 0.2
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub: 1.6E+01
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acetone

CAS Number:

000067-64-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-01	mg/kg/day	IRIS
Inhal RfD:	8.5E+00	mg/kg/day	ATSDR
RfC	3.0E+01	mg/m^3	ATSDR
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+04	µg/L	ECOTOX
Salt Ecol LC50:	1.9E+06	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	-2.4E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.8E+01	
Density:	7.8E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.3E+02	Torr	PHYSPROP
Henry's Law:	3.9E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:	3.5E-01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-2.4E-01		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.4E+01	°C
Boiling Point:	5.6E+01	°C
Formula:	C3H6O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acetone

CAS Number:

000067-64-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1			Toxicity:	1			Toxicity:	1		
Gas Mobility:	1			Water Solub:	1.0E+06						
Gas Migration:	17			Distrib:	3.5E-01						
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
				Non Liq	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1			Toxicity:	1			Fresh Tox:	100		
								Salt Tox:	1		
Persistence				Persistence				Persistence			
River:	0.4			River:	0.4			River:	0.4		
Lake:	0.07			Lake:	0.07			Lake:	0.07		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5			Fresh:	0.5		
				Salt:	0.5			Salt:	0.5		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	3.1E+01	mg/m3	Non Cancer Risk:	1E+01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+01	mg/L	Non Cancer Risk:	1E+03	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acrolein

CAS Number:

000107-02-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	5.7E-06	mg/kg/day	IRIS
RfC	2.0E-05	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	3.0E+00	µg/L	NRWQC
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:	3.0E+00	µg/L	NRWQC
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.0E+00	µg/L	ECOTOX
Salt Ecol LC50:	8.3E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	5.0E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.0E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	-1.0E-02		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.6E+01	
Density:	8.4E-01	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.7E+02	Torr	PHYSPROP
Henry's Law:	1.2E-04	atm-m3/mol	PHYSPROP
Water Solub:	2.1E+05	mg/L	PHYSPROP
Distrib Coef:	1.5E-01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.4E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.4E+02		ECOTOX
Salt BCF:			
Log Kow:	-1.0E-02		EPI_EXP
Water Solub:	2.1E+05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.7E+01	°C
Boiling Point:	5.2E+01	°C
Formula:	C3H4O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Acrolein

CAS Number: 000107-02-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	1		Water Solub:	2.1E+05							
Gas Migration:	17		Distrib:	1.5E-01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	0.07		River:	0.07		River:	0.07				
Lake:	0.07		Lake:	0.07		Lake:	0.07				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	2E-05	mg/m3	Non Cancer Risk:	7E-03	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	3.0E+00	µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:	3.0E+00	µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acrylamide

CAS Number:

000079-06-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-03	mg/kg/day	IRIS
Inhal RfD:	1.7E-03	mg/kg/day	IRIS
RfC	6.0E-03	mg/m^3	IRIS
Oral Slope:	5.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	1.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.5E+02	mg/kg	ACGIH
Dermal LD50:	1.1E+03	mg/kg	RTECS
Gas Inhal LC50:	5.7E+00	ppm	RTECS
Dust Inhal LC50:	1.6E-02	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.0E+04	µg/L	ECOTOX
Salt Ecol LC50:	2.4E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.3E+04	days	CHEMFATE
Volatility:	1.2E+04	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.3E+04	days	CHEMFATE
Volatility:	1.2E+04	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-6.7E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.1E+01	
Density:	1.0E+00	g/mL @ 30.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.0E-03	Torr	PHYSPROP
Henry's Law:	1.7E-09	atm-m3/mol	PHYSPROP
Water Solub:	3.9E+05	mg/L	PHYSPROP
Distrib Coef:	8.6E-01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.6E+00		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.6E+00		ECOTOX
Salt BCF:			
Log Kow:	-6.7E-01		EPI_EXP
Water Solub:	3.9E+05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.4E+01	°C
Boiling Point:	1.9E+02	°C
Formula:	C3H5NO	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Acrylamide

CAS Number:

000079-06-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	0.2
Gas Migration:	6

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	1000
Water Solub:	3.9E+05
Distrib:	8.6E-01
Geo Mean Sol:	
Mobility	
Liquid Karst:	1.0E+00
Non Karst:	1.0E+00
Non Liq Karst:	1.0E+00
Non Karst:	1.0E+00

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	1000
Persistence	
River:	1
Lake:	1

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	1000
Persistence	
River:	1
Lake:	1
Bioaccumulation	
Fresh:	5
Salt:	5

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	10
Salt Tox:	10
Persistence	
River:	1
Lake:	1
Bioaccumulation	
Fresh:	5
Salt:	5

BENCHMARKS

AIR PATHWAY

Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3
Cancer Risk:	9E-06	mg/m3
Non Cancer Risk:	6E-03	mg/m3

GROUND WATER PATHWAY

Parameter	Value	Unit
MCL/ MCLG:		mg/L
Cancer Risk:	4E-05	mg/L
Non Cancer Risk:	3E-02	mg/L

SOIL EXPOSURE PATHWAY

Parameter	Value	Unit
Cancer Risk:	2E-01	mg/kg
Non Cancer Risk:	1E+02	mg/kg

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:	4E-05	mg/L
Non Cancer Risk:	3E-02	mg/L

HUMAN FOOD CHAIN

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:	6E-03	mg/kg
Non Cancer Risk:	2E+00	mg/kg

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Alachlor

CAS Number:

015972-60-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	5.6E-02	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B2		HEAST
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	9.3E+02	mg/kg	ACGIH
Dermal LD50:	1.3E+04	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.6E+01	µg/L	ECOTOX
Salt Ecol LC50:	4.8E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	4.9E+03	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.8E+03	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+02	
Density:	1.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.2E-05	Torr	PHYSPROP
Henry's Law:	8.3E-09	atm-m3/mol	PHYSPROP
Water Solub:	2.4E+02	mg/L	PHYSPROP
Distrib Coef:	4.7E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.0E+01		ECOTOX
Salt BCF:			
Log Kow:	3.5E+00		EPI_EXP
Water Solub:	2.4E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.0E+01	°C
Boiling Point:	1.0E+02	°C
Formula:	C14H20ClNO2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Alachlor

CAS Number: 015972-60-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.02		Water Solub:	2.4E+02							
Gas Migration:	6		Distrib:	4.7E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Fresh Tox:	10000				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50				
			Salt:	500		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/	2E-03	mg/L	Cancer Risk:	1E+01	mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+02	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:	1E-03	mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	2E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1E-03	mg/L	Cancer Risk:	5E-02	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-01	mg/L	Non Cancer Risk:	1E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Aldrin

CAS Number:

000309-00-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-05	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.7E+01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	4.9E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.7E+01	(mg/kg/day)^-1	IRIS
Oral ED10:	4.1E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	4.1E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	3.9E+01	mg/kg	ACGIH
Dermal LD50:	1.5E+02	mg/kg	ACGIH
Gas Inhal LC50:	2.0E-01	ppm	RTECS
Dust Inhal LC50:	3.0E+00	mg/L	RTECS
ACUTE			
Fresh CMC:	3.0E+00	µg/L	NRWQC
Salt CMC:	1.3E+00	µg/L	NRWQC
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	9.7E-02	µg/L	ECOTOX
Salt Ecol LC50:	5.1E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	7.6E+02	days	CHEMFATE
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	7.6E+02	days	CHEMFATE
Volatility:	2.8E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.8E+02	days	HEDR
Radio:		days	
Log Kow:	6.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.6E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E-04	Torr	PHYSPROP
Henry's Law:	4.4E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.7E-02	mg/L	PHYSPROP
Distrib Coef:	1.2E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.9E+03		ECOTOX
Salt BCF:	9.6E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.4E+05		ECOTOX
Salt BCF:	9.6E+04		ECOTOX
Log Kow:	6.5E+00		EPI_EXP
Water Solub:	1.7E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	1.4E+02	°C
Formula:	C12H8Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Aldrin

CAS Number: 000309-00-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.02		Water Solub:	1.7E-02							
Gas Migration:	11		Distrib:	1.2E+04							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	3.7E-02	mg/kg	MCL:		pCi/L
Cancer Risk:	4.9E-07	mg/m3	Cancer Risk:	3.9E-06	mg/L	Non Cancer Risk:	2E+00	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	4E-04	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:	2E-02	ppm	ACUTE					
Cancer Risk:	3.9E-06	mg/L	Cancer Risk:	1.8E-04	mg/kg	Fresh CMC:	3.0E+00	µg/L			
Non Cancer Risk:	4E-04	mg/L	Non Cancer Risk:	4E-02	mg/kg	Salt CMC:	1.3E+00	µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Aluminum

CAS Number:

007429-90-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E+00	mg/kg/day	PPRTV
Inhal RfD:	1.4E-03	mg/kg/day	PPRTV
RfC	5.0E-03	mg/m^3	PPRTV
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.5E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	7.5E+02	µg/L	NRWQC
Salt CMC:	7.5E+02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	8.7E+01	µg/L	NRWQC
Salt CCC:	8.7E+01	µg/L	NRWQC
Fresh Ecol LC50:	1.2E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.2E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+01	
Density:	2.7E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.5E+03	ml/g	BAES
Geo Mean Sol:	5.8E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.6E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.4E+05		ECOTOX
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	5.8E+04	mg/L	CRC

OTHER DATA

Melting Point:	6.6E+02	°C
Boiling Point:	2.5E+03	°C
Formula:	Al	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Aluminum

CAS Number: 007429-90-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Toxicity:		1000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		1.5E+03					
				Geo Mean Sol:		5.8E+04					
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E-04			
				Non Liq		Karst:		1.0E+00			
						Non Karst:		1.0E-04			
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Fresh Tox:		100	
								Salt Tox:		100	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		50		Fresh:		50000	
				Salt:		50		Salt:		50000	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	5E-03	mg/m3	Non Cancer Risk:	1E+01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	7.5E+02	µg/L			
Non Cancer Risk:	1E+01	mg/L	Non Cancer Risk:	1E+03	mg/kg	Salt CMC:	7.5E+02	µg/L			
						CHRONIC					
						Fresh CCC:	8.7E+01	µg/L			
						Salt CCC:	8.7E+01	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Americium

CAS Number:

007440-35-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	2.4E+02	
Density:	1.2E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	6.8E+02	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.4E+03		ECOTOX
Salt BCF:	7.0E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.4E+03		ECOTOX
Salt BCF:	1.2E+03		ECOTOX

Log Kow:

Water Solub:

Geo Mean Sol: mg/L

OTHER DATA

Melting Point:	1.1E+03	°C
Boiling Point:	2.0E+03	°C
Formula:	Am	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Americium

CAS Number: 007440-35-9

ASSIGNED FACTOR VALUES														
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY								
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>							
Toxicity:	0		Toxicity:	0		Toxicity:	0							
Gas Mobility:			Water Solub:											
Gas Migration:			Distrib:	6.8E+02										
			Geo Mean Sol:											
			Mobility											
			Liquid	Karst:	1.0E+00									
				Non Karst:	1.0E-02									
			Non Liq	Karst:										
				Non Karst:										
SURFACE WATER PATHWAY														
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL								
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>							
Toxicity:	0		Toxicity:	0		Fresh Tox:	0							
						Salt Tox:	0							
Persistence			Persistence			Persistence								
River:	1		River:	1		River:	1							
Lake:	1		Lake:	1		Lake:	1							
			Bioaccumulation			Bioaccumulation								
			Fresh:	5000		Fresh:	5000							
			Salt:	500		Salt:	5000							
BENCHMARKS														
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L			
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg			
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK					
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:		pCi/m3			
									DW:		pCi/L			
									FC:		pCi/kg			
									Soil Ing:		pCi/kg			
									Soil Gam:		pCi/kg			
SURFACE WATER PATHWAY														
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL								
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>						
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE								
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L						
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L						
									CHRONIC					
									Fresh CCC:		µg/L			
									Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Americium 241 (radionuclide)

CAS Number:

014596-10-2

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.3E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.1E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.0E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.8E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.7E-08	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.6E-03		OSRTI_PRG
Area Correct.:	9.6E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.5E+05	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.5E+05	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.4E+02		
Density:	1.2E+01	g/mL @	25.0 °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	6.8E+02	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA		
Melting Point:	1.1E+03	°C
Boiling Point:	2.0E+03	°C
Formula:	Am-241	

CLASS INFORMATION

Parent Substance

Americium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Americium 241 (radionuclide)

CAS Number: 014596-10-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.8E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.88E-04	pCi/m3
									DW:	5.08E-01	pCi/L
									FC:	1.31E+01	pCi/kg
									Soil Ing:	3.74E+03	pCi/kg
									Soil Gam:	3.85E+03	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Ammonia

CAS Number:

007664-41-7

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	2.0E+03	ppm	RTECS
Dust Inhal LC50:	1.3E+00	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.5E+02	µg/L	ECOTOX

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-1.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.7E+01	
Density:		g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:	7.5E+03	Torr	PHYSPROP
Henry's Law:	1.6E-05	atm-m3/mol	PHYSPROP
Water Solub:	4.8E+05	mg/L	PHYSPROP
Distrib Coef:	9.9E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-1.3E+00		EPI_EXP
Water Solub:	4.8E+05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-7.7E+01	°C
Boiling Point:	-3.3E+01	°C
Formula:	H3N	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Ammonia

CAS Number: 007664-41-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 4.8E+05
Distrib: 9.9E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 0.07

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 0.4
Lake: 0.07

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Aniline

CAS Number:

000062-53-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-03	mg/kg/day	PPRTV
Inhal RfD:	2.8E-04	mg/kg/day	IRIS
RfC	1.0E-03	mg/m^3	IRIS
Oral Slope:	5.7E-03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.6E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	5.6E-03	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	4.4E+02	mg/kg	ACGIH
Dermal LD50:	1.4E+03	mg/kg	RTECS
Gas Inhal LC50:	1.7E+02	ppm	RTECS
Dust Inhal LC50:	6.6E-01	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.2E+01	µg/L	ECOTOX
Salt Ecol LC50:	2.9E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.6E+01	days	THOMAS
Photolysis:	2.6E+00	days	CHEMFATE
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+01	days	THOMAS
Photolysis:	2.6E+00	days	CHEMFATE
Biodeg:		days	
Radio:		days	
Log Kow:	9.0E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.3E+01	
Density:	1.0E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.9E-01	Torr	PHYSPROP
Henry's Law:	2.0E-06	atm-m3/mol	PHYSPROP
Water Solub:	3.6E+04	mg/L	PHYSPROP
Distrib Coef:	1.0E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.0E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.8E+02		ECOTOX
Salt BCF:			
Log Kow:	9.0E-01		EPI_EXP
Water Solub:	3.6E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-6.0E+00	°C
Boiling Point:	1.8E+02	°C
Formula:	C6H7N	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Aniline

CAS Number:

000062-53-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Toxicity:		10000	
Gas Mobility:		1		Water Solub:		3.6E+04					
Gas Migration:		11		Distrib:		1.0E+01					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
				Non Liq		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Fresh Tox:		10000	
								Salt Tox:		10	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		50		Fresh:		500	
				Salt:		50		Salt:		500	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:	1.1E+02	mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	5E+02	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:	1.5E-03	mg/m3	Cancer Risk:	1.1E-02	mg/L				CANCER RISK		
Non Cancer Risk:	1E-03	mg/m3	Non Cancer Risk:	1E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.1E-02	mg/L	Cancer Risk:	5.5E-01	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-01	mg/L	Non Cancer Risk:	9E+00	mg/kg	Salt CMC:		µg/L			
									CHRONIC		
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Anthracene

CAS Number:

000120-12-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.7E-01	µg/L	ECOTOX
Salt Ecol LC50:	3.6E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+02	days	THOMAS
Photolysis:	3.1E-02	days	CHEMFATE
Biodeg:	6.2E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+00	days	THOMAS
Photolysis:	3.1E-02	days	CHEMFATE
Biodeg:	6.2E+00	days	CHEMFATE
Radio:		days	
Log Kow:	4.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.7E+02	
Density:	1.2E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.5E-06	Torr	PHYSPROP
Henry's Law:	5.5E-05	atm-m3/mol	PHYSPROP
Water Solub:	4.3E-02	mg/L	PHYSPROP
Distrib Coef:	2.4E+03	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.6E+04		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.6E+04		ECOTOX
Salt BCF:	2.6E+04		ECOTOX
Log Kow:	4.4E+00		EPI_EXP
Water Solub:	4.3E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.1E+02	°C
Boiling Point:	3.3E+02	°C
Formula:	C14H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Anthracene

CAS Number:

000120-12-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 4.3E-02
Distrib: 2.4E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Antimony

CAS Number:

007440-36-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-04	mg/kg/day	IRIS
Inhal RfD:	5.7E-05	mg/kg/day	IRIS
RfC	2.0E-04	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+02	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.3E+05	µg/L	ECOTOX
Salt Ecol LC50:	6.2E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	6.6E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	4.5E+01	ml/g	SSG_TECH
Geo Mean Sol:	6.9E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.0E+00		VERSAR
Salt BCF:	4.4E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.0E+00		VERSAR
Salt BCF:	1.7E+01		ECOTOX
Log Kow:	7.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	6.9E+06	mg/L	CRC

OTHER DATA

Melting Point:	6.3E+02	°C
Boiling Point:	1.5E+03	°C
Formula:	Sb	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Antimony

CAS Number: 007440-36-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 4.5E+01
Geo Mean Sol: 6.9E+06
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 100

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-04 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 6E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 6E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 5E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Antimony 125(+D) (radionuclide)

CAS Number:

014234-35-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 7.2E-12	(pCi)^-1	HEAST
	Soil: 1.3E-11	(pCi)^-1	HEAST
	Water: 5.1E-12	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.9E-11	(pCi)^-1	HEAST
Extern. Exp Slope:	1.8E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+03	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+03	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Sb-125 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Antimony 125(+D) (radionuclide)

CAS Number: 014234-35-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	2.74E-01	pCi/m3
									DW:	1.03E+01	pCi/L
									FC:	2.44E+02	pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Arsenic

CAS Number:

007440-38-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:	4.2E-06	mg/kg/day	CALEPA
RfC	1.5E-05	mg/m^3	CALEPA
Oral Slope:	1.5E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	A		IRIS
IUR:	4.3E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	1.5E+01	(mg/kg/day)^-1	IRIS
Oral ED10:	7.0E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	A		EPA_ED10
Inhal ED10:	7.0E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	A		EPA_ED10
Oral LD50:	1.4E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	3.4E+02	µg/L	NRWQC
Salt CMC:	6.9E+01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.5E+02	µg/L	NRWQC
Salt CCC:	3.6E+01	µg/L	NRWQC
Fresh Ecol LC50:	1.5E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.9E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.8E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.4E+01	
Density:	5.7E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.5E-09	Torr	PHYSPROP
Henry's Law:	7.7E-01	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	2.9E+01	ml/g	SSG
Geo Mean Sol:	2.0E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.0E+00		VERSAR
Salt BCF:	3.5E+02		VERSAR
ENVIRONMENTAL			
Fresh BCF:	1.2E+04		ECOTOX
Salt BCF:	3.5E+02		VERSAR
Log Kow:	6.8E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	2.0E+04	mg/L	CRC

OTHER DATA

Melting Point:	8.1E+02	°C
Boiling Point:	6.1E+02	°C
Formula:	As	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Arsenic

CAS Number: 007440-38-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	2.9E+01							
			Geo Mean Sol:	2.0E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	50000				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1E-02	mg/L	Cancer Risk:	7.1E-01	mg/kg	MCL:		pCi/L
Cancer Risk:	5.6E-07	mg/m3	Cancer Risk:	4.4E-05	mg/L	Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	1.5E-05	mg/m3	Non Cancer Risk:	4E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1E-02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	4.4E-05	mg/L	Cancer Risk:	2.1E-03	mg/kg	Fresh CMC:	3.4E+02	µg/L			
Non Cancer Risk:	4E-03	mg/L	Non Cancer Risk:	4E-01	mg/kg	Salt CMC:	6.9E+01	µg/L			
						CHRONIC					
						Fresh CCC:	1.5E+02	µg/L			
						Salt CCC:	3.6E+01	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Asbestos

CAS Number:

001332-21-4

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.9E-04	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	A		CALEPA
IUR:	2.3E-01	(fibers/mL)	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	mixture

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Asbestos

CAS Number: 001332-21-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	1.0E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		million fibers/L	Cancer Risk:	3.3E+03	mg/kg	MCL:		pCi/L
Cancer Risk:	4.5E-06 ^{A1}	fibers/cc	Cancer Risk:	3.5E-01	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Atrazine

CAS Number:

001912-24-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.5E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.3E-01	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	C		HEAST
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+03	mg/kg	ACGIH
Dermal LD50:	7.5E+03	mg/kg	RTECS
Gas Inhal LC50:	5.8E+02	ppm	RTECS
Dust Inhal LC50:	5.2E+03	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.0E-02	µg/L	ECOTOX
Salt Ecol LC50:	1.4E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.0E-01	days	CHEMFATE
Volatility:	1.5E+04	days	THOMAS
Photolysis:	1.0E+00	days	CHEMFATE
Biodeg:	7.4E+02	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.0E-01	days	CHEMFATE
Volatility:	1.5E+04	days	THOMAS
Photolysis:	1.0E+00	days	CHEMFATE
Biodeg:	7.4E+02	days	CHEMFATE
Radio:		days	
Log Kow:	2.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.8E-07	Torr	PHYSPROP
Henry's Law:	2.3E-09	atm-m3/mol	PHYSPROP
Water Solub:	3.4E+01	mg/L	PHYSPROP
Distrib Coef:	3.4E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.4E+04		ECOTOX
Salt BCF:			
Log Kow:	2.6E+00		EPI_EXP
Water Solub:	3.4E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	3.1E+02	°C
Formula:	C8H14ClN5	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Barium

CAS Number:

007440-39-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	1.4E-04	mg/kg/day	HEAST
RfC	5.0E-04	mg/m^3	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.9E+03	mg/kg	ACGIH
Dermal LD50:	5.0E+00	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.9E+05	µg/L	ECOTOX
Salt Ecol LC50:	5.0E+05	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.3E+02	
Density:	3.6E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	4.1E+01	ml/g	SSG
Geo Mean Sol:	5.8E+03	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	7.0E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:	7.0E+02		ECOTOX
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	5.8E+03	mg/L	CRC

OTHER DATA

Melting Point:	7.2E+02	°C
Boiling Point:	1.8E+03	°C
Formula:	Ba	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Barium

CAS Number: 007440-39-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Toxicity:	10000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:	4.1E+01						
				Geo Mean Sol:	5.8E+03						
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
				Non Liq	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Fresh Tox:	1		
								Salt Tox:	1		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	500			Fresh:	500		
				Salt:	500			Salt:	500		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E+00	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	1E+04	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	5E-04	mg/m3	Non Cancer Risk:	3E+00	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E+00	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:				µg/L	
Non Cancer Risk:	3E+00	mg/L	Non Cancer Risk:	2E+02	mg/kg	Salt CMC:				µg/L	
						CHRONIC					
						Fresh CCC:				µg/L	
						Salt CCC:				µg/L	

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benz(a)anthracene

CAS Number:

000056-55-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E-01	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		PPRTV
IUR:	1.1E-04	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E-01	(mg/kg/day)^-1	RSL_TEF
Oral ED10:	4.7E-02	mg/kg/day	EPA_ED10
Inhal ED10:	4.7E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+01	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+02	days	THOMAS
Photolysis:	2.4E-02	days	CHEMFATE
Biodeg:	6.7E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.5E+00	days	THOMAS
Photolysis:	2.4E-02	days	CHEMFATE
Biodeg:	6.7E+02	days	HEDR
Radio:		days	
Log Kow:	5.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.2E+02	
Density:	1.3E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.1E-07	Torr	PHYSPROP
Henry's Law:	1.2E-05	atm-m3/mol	PHYSPROP
Water Solub:	9.4E-03	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.0E+04		ECOTOX
Salt BCF:			
Log Kow:	5.7E+00		EPI_EXP
Water Solub:	9.4E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.4E+01	°C
Boiling Point:	4.3E+02	°C
Formula:	C18H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Benz(a)anthracene

CAS Number: 000056-55-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 9.4E-03
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 8.7E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 2.9E-05 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.0E-01 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 2.9E-05 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 4.3E-03 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzene

CAS Number:

000071-43-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-03	mg/kg/day	IRIS
Inhal RfD:	8.5E-03	mg/kg/day	IRIS
RfC	3.0E-02	mg/m^3	IRIS
Oral Slope:	5.5E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	A		IRIS
IUR:	7.8E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	2.7E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	7.8E+01	days	THOMAS
Photolysis:	6.7E+02	days	CHEMFATE
Biodeg:	6.0E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.4E-01	days	THOMAS
Photolysis:	6.7E+02	days	CHEMFATE
Biodeg:	6.0E+00	days	CHEMFATE
Radio:		days	
Log Kow:	2.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.8E+01	
Density:	8.7E-01	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.4E+01	Torr	PHYSPROP
Henry's Law:	5.5E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.7E+03	mg/L	PHYSPROP
Distrib Coef:	2.2E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.4E+03		ECOTOX
Salt BCF:	8.4E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.2E+03		ECOTOX
Salt BCF:	1.0E+04		ECOTOX
Log Kow:	2.1E+00		EPI_EXP
Water Solub:	1.7E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	5.5E+00	°C
Boiling Point:	8.0E+01	°C
Formula:	C6H6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Benzene

CAS Number: 000071-43-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	1		Water Solub:	1.7E+03							
Gas Migration:	17		Distrib:	2.2E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	5000				
			Salt:	5000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	5E-03	mg/L	Cancer Risk:	1.1E+01	mg/kg	MCL:		pCi/L
Cancer Risk:	3.1E-04	mg/m3	Cancer Risk:	1.2E-03	mg/L	Non Cancer Risk:	3E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	3E-02	mg/m3	Non Cancer Risk:	6E-02	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	5E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.2E-03	mg/L	Cancer Risk:	5.7E-02	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	6E-02	mg/L	Non Cancer Risk:	5E+00	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzidine

CAS Number:

000092-87-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.3E+02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	A		IRIS
IUR:	6.7E-02	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	2.3E+02	(mg/kg/day)^-1	IRIS
Oral ED10:	4.5E-04	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	A		EPA_ED10
Inhal ED10:	4.5E-04	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	A		EPA_ED10
Oral LD50:	2.1E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.5E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	6.4E+05	days	THOMAS
Photolysis:		days	
Biodeg:	8.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	6.4E+05	days	THOMAS
Photolysis:		days	
Biodeg:	8.0E+00	days	HEDR
Radio:		days	
Log Kow:	1.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.8E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.9E-07	Torr	PHYSPROP
Henry's Law:	5.1E-11	atm-m3/mol	PHYSPROP
Water Solub:	3.2E+02	mg/L	PHYSPROP
Distrib Coef:	1.8E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.4E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.6E+03		ECOTOX
Salt BCF:			
Log Kow:	1.3E+00		EPI_EXP
Water Solub:	3.2E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.2E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C12H12N2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzidine

CAS Number:

000092-87-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.002
Gas Migration: 0

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 3.2E+02
Distrib: 1.8E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.4E-08 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 9.3E-08 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 6.4E-04 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 9.3E-08 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1.3E-05 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzo(a)pyrene

CAS Number:

000050-32-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.1E-03	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B2		CALEPA
Inhal Slope:	3.8E+00	(mg/kg/day)^-1	CALEPA
Oral ED10:	4.0E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	4.0E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:		mg/kg	
Dermal LD50:	5.0E+01	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.0E+00	µg/L	ECOTOX
Salt Ecol LC50:	8.3E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.2E+02	days	THOMAS
Photolysis:	2.2E-02	days	CHEMFATE
Biodeg:	5.2E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.6E+01	days	THOMAS
Photolysis:	2.2E-02	days	CHEMFATE
Biodeg:	5.2E+02	days	HEDR
Radio:		days	
Log Kow:	6.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.4E-09	Torr	PHYSPROP
Henry's Law:	4.5E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.6E-03	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.9E+05		ECOTOX
Salt BCF:	9.6E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.9E+05		ECOTOX
Salt BCF:	9.6E+05		ECOTOX
Log Kow:	6.1E+00		EPI_EXP
Water Solub:	1.6E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	4.9E+02	°C
Formula:	C20H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzo(g,h,i)perylene

CAS Number:

000191-24-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:	6.5E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:	6.5E+02	days	HEDR
Radio:		days	
Log Kow:	6.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E-10	Torr	PHYSPROP
Henry's Law:	3.3E-07	atm-m3/mol	PHYSPROP
Water Solub:	2.6E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.8E+04		ECOTOX
Salt BCF:			
Log Kow:	6.6E+00		EPI_EXP
Water Solub:	2.6E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.7E+02	°C
Boiling Point:	5.0E+02	°C
Formula:	C22H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Benzo(g,h,i)perylene

CAS Number: 000191-24-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub: 2.6E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzo(j,k)fluorene (Fluoranthene)

CAS Number:

000206-44-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-02	mg/kg/day	ATSDR
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.0E+03	mg/kg	RTECS
Dermal LD50:	3.1E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	9.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	9.0E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+02	days	THOMAS
Photolysis:	2.6E+00	days	HEDR
Biodeg:	4.4E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.2E+00	days	THOMAS
Photolysis:	2.6E+00	days	HEDR
Biodeg:	4.4E+02	days	HEDR
Radio:		days	
Log Kow:	5.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:	1.2E+00	g/mL @ 0.000 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.2E-06	Torr	PHYSPROP
Henry's Law:	8.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.6E-01	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.1E+03		ECOTOX
Salt BCF:	4.6E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.7E+03		ECOTOX
Salt BCF:	4.6E+05		ECOTOX
Log Kow:	5.1E+00		EPI_EXP
Water Solub:	2.6E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	3.8E+02	°C
Formula:	C16H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzo(j,k)fluorene (Fluoranthene)

CAS Number:

000206-44-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.6E-01
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 5E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Benzo(k)fluoranthene

CAS Number:

000207-08-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E-02	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-04	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E-01	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+02	days	THOMAS
Photolysis:	2.0E+01	days	HEDR
Biodeg:	2.1E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	6.8E+01	days	THOMAS
Photolysis:	2.0E+01	days	HEDR
Biodeg:	2.1E+03	days	HEDR
Radio:		days	
Log Kow:	6.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.6E-10	Torr	PHYSPROP
Henry's Law:	5.8E-07	atm-m3/mol	PHYSPROP
Water Solub:	8.0E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	2.0E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.3E+04		ECOTOX
Salt BCF:	2.0E+05		ECOTOX
Log Kow:	6.1E+00		EPI_EXP
Water Solub:	8.0E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.1E+02	°C
Boiling Point:	4.8E+02	°C
Formula:	C20H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Benzo(k)fluoranthene

CAS Number: 000207-08-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.0002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 8.0E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 8.7E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 2.9E-04 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.0E+00 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 2.9E-04 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 4.3E-02 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Beryllium

CAS Number:

007440-41-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-03	mg/kg/day	IRIS
Inhal RfD:	5.7E-06	mg/kg/day	IRIS
RfC	2.0E-05	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	2.4E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B1		IRIS
Inhal Slope:	8.4E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	1.2E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.2E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	5.1E+01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.0E+02	µg/L	ECOTOX
Salt Ecol LC50:	8.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-5.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.0E+00	
Density:	1.8E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	1.5E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	7.9E+02	ml/g	SSG
Geo Mean Sol:	7.7E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.9E+01		VERSAR
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.9E+01		VERSAR
Salt BCF:			
Log Kow:	-5.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	7.7E+05	mg/L	CRC

OTHER DATA

Melting Point:	1.2E+03	°C
Boiling Point:	2.4E+03	°C
Formula:	Be	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Beryllium

CAS Number: 007440-41-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Toxicity:		10000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		7.9E+02					
				Geo Mean Sol:		7.7E+05					
				Mobility							
				Liquid		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
				Non Liq		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Fresh Tox:		1000	
								Salt Tox:		1000	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		50		Fresh:		50	
				Salt:		50		Salt:		50	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	4E-03	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:	1.0E-06	mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	1E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	2E-05	mg/m3	Non Cancer Risk:	3E-02	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	4E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-02	mg/L	Non Cancer Risk:	2E+00	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Bis(2-ethylhexyl) phthalate

CAS Number:

000117-81-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.4E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	2.4E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:			
Inhal Slope:	8.4E-03	(mg/kg/day)^-1	CALEPA
Oral ED10:	5.1E+00	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	5.1E+00	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.9E+04	mg/kg	RTECS
Dermal LD50:	2.5E+04	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.6E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	7.3E+05	days	CHEMFATE
Volatility:	3.5E+02	days	THOMAS
Photolysis:	2.0E+02	days	HEDR
Biodeg:	8.0E-01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	7.3E+05	days	CHEMFATE
Volatility:	1.8E+02	days	THOMAS
Photolysis:	2.0E+02	days	HEDR
Biodeg:	8.0E-01	days	CHEMFATE
Radio:		days	
Log Kow:	7.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.9E+02	
Density:	9.8E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.4E-07	Torr	PHYSPROP
Henry's Law:	2.7E-07	atm-m3/mol	PHYSPROP
Water Solub:	2.7E-01	mg/L	PHYSPROP
Distrib Coef:	1.8E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.1E+04		ECOTOX
Salt BCF:	2.7E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.0E+05		ECOTOX
Salt BCF:	6.5E+03		ECOTOX
Log Kow:	7.6E+00		EPI_EXP
Water Solub:	2.7E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-5.5E+01	°C
Boiling Point:	3.8E+02	°C
Formula:	C24H38O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Bis(2-ethylhexyl) phthalate

CAS Number: 000117-81-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.002		Water Solub:	2.7E-01							
Gas Migration:	6		Distrib:	1.8E+04							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	500		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.0E+01	mg/kg	MCL:		pCi/L
Cancer Risk:	4.0E-04	mg/m3	Cancer Risk:	1.5E-03	mg/L	Non Cancer Risk:	1E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	3E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.5E-03	mg/L	Cancer Risk:	2.2E-01	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-01	mg/L	Non Cancer Risk:	2E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Boron

CAS Number:

007440-42-8

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	5.7E-03	mg/kg/day	HEAST
RfC	2.0E-02	mg/m^3	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.1E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+01	
Density:	2.3E+00	g/mL @ 25.0 °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	3.0E+00	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.8E+01		ECOTOX
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.0E+03	°C
Boiling Point:	4.0E+03	°C
Formula:	B	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Boron

CAS Number: 007440-42-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		100		Toxicity:		100		Toxicity:		100	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		3.0E+00					
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		100		Toxicity:		100		Fresh Tox:		0	
								Salt Tox:		0	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		0.5		Fresh:		50	
				Salt:		0.5		Salt:		50	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	2E-02	mg/m3	Non Cancer Risk:	3E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E+00	mg/L	Non Cancer Risk:	2E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Bromodichloromethane

CAS Number:

000075-27-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	6.2E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	3.7E-05	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		CALEPA
Inhal Slope:	1.2E-01	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	5.0E+04	days	CHEMFATE
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:	5.0E+04	days	CHEMFATE
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.9E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.0E+01	Torr	PHYSPROP
Henry's Law:	2.1E-03	atm-m3/mol	PHYSPROP
Water Solub:	3.0E+03	mg/L	PHYSPROP
Distrib Coef:	4.8E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+00		EPI_EXP
Water Solub:	3.0E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-5.7E+01	°C
Boiling Point:	9.0E+01	°C
Formula:	CHBrCl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Bromodichloromethane

CAS Number: 000075-27-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 3.0E+03
Distrib: 4.8E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.5E-05 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.0E-03 mg/L
Non Cancer Risk: 3E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.0E+01 mg/kg
Non Cancer Risk: 1E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.0E-03 mg/L
Non Cancer Risk: 3E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 5.0E-02 mg/kg
Non Cancer Risk: 2E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Butylbenzyl phthalate

CAS Number:

000085-68-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.9E-03	(mg/kg/day)^-1	PPRTV
Oral Wt-of-Evid:	C		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.3E+03	mg/kg	RTECS
Dermal LD50:	1.0E+04	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.8E+02	µg/L	ECOTOX
Salt Ecol LC50:	4.6E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:	3.6E+04	days	HEDR
Biodeg:	4.0E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	3.6E+01	days	THOMAS
Photolysis:	3.6E+04	days	HEDR
Biodeg:	2.0E+00	days	CHEMFATE
Radio:		days	
Log Kow:	4.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.2E-06	Torr	PHYSPROP
Henry's Law:	1.2E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.6E+00	mg/L	PHYSPROP
Distrib Coef:	1.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.6E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	6.6E+02		ECOTOX
Salt BCF:			
Log Kow:	4.7E+00		EPI_EXP
Water Solub:	2.6E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	3.7E+02 °C
Formula:	C19H20O4

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Butylbenzyl phthalate

CAS Number: 000085-68-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 2.6E+00
Distrib: 1.0E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 3.5E-02 mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 3.3E+02 mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 3.5E-02 mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1.6E+00 mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cadmium

CAS Number:

007440-43-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	2.8E-06	mg/kg/day	ATSDR
RfC	1.0E-05	mg/m^3	ATSDR
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	B1		IRIS
IUR:	1.8E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B1		IRIS
Inhal Slope:	6.3E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	1.7E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B1		EPA_ED10
Inhal ED10:	1.7E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B1		EPA_ED10
Oral LD50:	8.9E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:	2.5E+01	mg/L	RTECS
ACUTE			
Fresh CMC:	2.0E+00	µg/L	NRWQC
Salt CMC:	4.0E+01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	2.5E-01	µg/L	NRWQC
Salt CCC:	8.8E+00	µg/L	NRWQC
Fresh Ecol LC50:	1.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	3.0E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-7.0E-02		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:	8.6E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.1E-09	Torr	PHYSPROP
Henry's Law:	3.0E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	7.5E+01	ml/g	SSG
Geo Mean Sol:	9.6E+03	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.4E+04		ECOTOX
Salt BCF:	5.0E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.0E+05		ECOTOX
Salt BCF:	5.0E+04		ECOTOX
Log Kow:	-7.0E-02		PHYSPROP
Water Solub:			
Geo Mean Sol:	9.6E+03	mg/L	CRC

OTHER DATA

Melting Point:	3.2E+02	°C
Boiling Point:	7.6E+02	°C
Formula:	Cd	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cadmium

CAS Number: 007440-43-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	7.5E+01							
			Geo Mean Sol:	9.6E+03							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	5E-03	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:	1.3E-06	mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	1E-05	mg/m3	Non Cancer Risk:	7E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	5E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	2.0E+00	µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:	4.0E+01	µg/L			
						CHRONIC					
						Fresh CCC:	2.5E-01	µg/L			
						Salt CCC:	8.8E+00	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cadmium 109 (radionuclide)

CAS Number:

014109-32-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
RfC		mg/m^3		Gas:	No		
Oral Slope:	Food: 6.7E-12	(pCi)^-1	OSRTI_PRG	Particulate:	Yes		
	Soil: 1.1E-11	(pCi)^-1	OSRTI_PRG	Radionuclide:	Yes		
	Water: 5.0E-12	(pCi)^-1	OSRTI_PRG	Rad. Element:	No		
Oral Wt-of-Evid:	A		HRS	Molecular Weight:	1.1E+02		
IUR:		(µg/m3)^-1		Density:	8.6E+00	g/mL @	25.0 °C
IUR Wt-of-Evid:	A		HRS	MOBILITY			
Inhal Slope:	2.1E-11	(pCi)^-1	OSRTI_PRG	Parameter	Value	Unit	Source
Extern. Exp Slope:	8.7E-09	(yr)^-1/pCi[(g)^-1]		Vapor Press:	4.1E-09	Torr	PHYSPROP
Lambda:	5.4E-01		OSRTI_PRG	Henry's Law:	3.0E-02	atm-m3/mol	PHYSPROP
Area Correct.:	9.9E-01	m^2	OSRTI_PRG	Water Solub:		mg/L	
Oral ED10:		mg/kg/day		Distrib Coef:	7.5E+01	ml/g	SSG
Oral ED10 Wgt:		mg/kg/day		Geo Mean Sol:	9.6E+03	mg/L	CRC
Inhal ED10:		mg/kg/day		BIOACCUMULATION			
Inhal ED10 Wgt:		mg/kg		Parameter	Value	Unit	Source
Oral LD50:		mg/kg		FOOD CHAIN			
Dermal LD50:		mg/kg		Fresh BCF:	4.4E+04		ECOTOX
Gas Inhal LC50:		ppm		Salt BCF:	5.0E+04		ECOTOX
Dust Inhal LC50:		mg/L		ENVIRONMENTAL			
ACUTE				Fresh BCF:	2.0E+05		ECOTOX
Fresh CMC:		µg/L		Salt BCF:	5.0E+04		ECOTOX
Salt CMC:		µg/L		Log Kow:			
CHRONIC				Water Solub:			PHYSPROP
Fresh CCC:		µg/L		Geo Mean Sol:	9.6E+03	mg/L	CRC
Salt CCC:		µg/L		OTHER DATA			
Fresh Ecol LC50:		µg/L		Melting Point:	3.2E+02	°C	
Salt Ecol LC50:		µg/L		Boiling Point:	7.6E+02	°C	
PERSISTENCE				Formula:	Cd-109		
Parameter	Value	Unit	Source				
LAKE- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	4.6E+02	days	HEAST				
RIVER- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	4.6E+02	days	HEAST				
Log Kow:	-7.0E-02		PHYSPROP				

CLASS INFORMATION

Parent Substance

Cadmium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cadmium 109 (radionuclide)

CAS Number: 014109-32-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	7.5E+01							
			Geo Mean Sol:	9.6E+03							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m3	MCL/MCLG:	6E+02	mg/L	Cancer Risk:		mg/kg	MCL:	6E+02	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	2.41E-01	pCi/m3
									DW:	1E+01	pCi/L
									FC:	2.6E+02	pCi/kg
									Soil Ing:	1.13E+06	pCi/kg
									Soil Gam:	1.88E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	6E+02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Carbazole

CAS Number:

000086-74-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.0E-02	(mg/kg/day)^-1	HEAST
Oral Wt-of-Evid:	B2		HEAST
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.0E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	9.3E+02	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	4.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	3.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.1E+00	g/mL @ 18.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.5E-07	Torr	PHYSPROP
Henry's Law:	8.6E-08	atm-m3/mol	PHYSPROP
Water Solub:	1.8E+00	mg/L	PHYSPROP
Distrib Coef:	1.3E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.1E+02		ECOTOX
Salt BCF:			
Log Kow:	3.7E+00		EPI_EXP
Water Solub:	1.8E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.4E+02	°C
Boiling Point:	3.5E+02	°C
Formula:	C12H9N	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Carbon Disulfide

CAS Number:

000075-15-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.0E-01	mg/kg/day	IRIS
RfC	7.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.9E+03	µg/L	ECOTOX
Salt Ecol LC50:	4.5E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	4.0E+02	days	CHEMFATE
Volatility:	7.7E+01	days	THOMAS
Photolysis:	1.1E+01	days	CHEMFATE
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:	4.0E+02	days	CHEMFATE
Volatility:	8.3E-01	days	THOMAS
Photolysis:	1.1E+01	days	CHEMFATE
Biodeg:		days	
Radio:		days	
Log Kow:	1.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.6E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E+02	Torr	PHYSPROP
Henry's Law:	1.4E-02	atm-m3/mol	PHYSPROP
Water Solub:	1.1E+03	mg/L	PHYSPROP
Distrib Coef:	3.3E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.9E+00		EPI_EXP
Water Solub:	1.1E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.1E+02	°C
Boiling Point:	4.6E+01	°C
Formula:	CS2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Carbon Disulfide

CAS Number:

000075-15-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 1.1E+03
Distrib: 3.3E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 10

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 7E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Carbon Tetrachloride

CAS Number:

000056-23-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:	7.0E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	6.0E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	2.1E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.0E+03	µg/L	ECOTOX
Salt Ecol LC50:	5.0E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.5E+06	days	CHEMFATE
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.5E+06	days	CHEMFATE
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	2.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.5E+02	
Density:	1.5E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E+02	Torr	PHYSPROP
Henry's Law:	2.7E-02	atm-m3/mol	PHYSPROP
Water Solub:	7.9E+02	mg/L	PHYSPROP
Distrib Coef:	6.6E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.0E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.0E+02		ECOTOX
Salt BCF:			
Log Kow:	2.8E+00		EPI_EXP
Water Solub:	7.9E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.3E+01	°C
Boiling Point:	7.6E+01	°C
Formula:	CCl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Carbon Tetrachloride

CAS Number: 000056-23-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 7.9E+02
Distrib: 6.6E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 10

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 4E-04 mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 5E-03 mg/L
Cancer Risk: 9E-04 mg/L
Non Cancer Risk: 6E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 9E+00 mg/kg
Non Cancer Risk: 3E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 5E-03 mg/L
Cancer Risk: 9E-04 mg/L
Non Cancer Risk: 6E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 4E-02 mg/kg
Non Cancer Risk: 5E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cesium

CAS Number:

007440-46-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.1E-02	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.1E-02	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	1.3E+02	
Density:	1.8E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.0E+01	ml/g	SSG_RAD
Geo Mean Sol:	1.9E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.0E+00		ECOTOX
Salt BCF:	4.3E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.0E+00		ECOTOX
Salt BCF:	4.3E+01		ECOTOX
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.9E+05	mg/L	CRC

OTHER DATA

Melting Point:	2.8E+01	°C
Boiling Point:	6.7E+02	°C
Formula:	Cs	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cesium

CAS Number:

007440-46-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub:
Distrib: 1.0E+01
Geo Mean Sol: 1.9E+05
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cesium 137(+D) (radionuclide)

CAS Number:

010045-97-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.7E-11	(pCi)^-1	OSRTI_PRG
	Soil: 4.3E-11	(pCi)^-1	OSRTI_PRG
	Water: 3.0E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.1E-11	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.5E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	2.3E-02		OSRTI_PRG
Area Correct.:	8.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Cs-137 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cesium 137(+D) (radionuclide)

CAS Number: 010045-97-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Toxicity:	10000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:							
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Fresh Tox:	10000		
								Salt Tox:	10000		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5		Fresh:	0.5			
				Salt:	0.5		Salt:	0.5			
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	4.44E-01	pCi/m3
									DW:	1.74E+00	pCi/L
									FC:	4.71E+01	pCi/kg
									Soil Ing:	2.54E+04	pCi/kg
									Soil Gam:	6.24E+01	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chlordane

CAS Number:

012789-03-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	2.0E-04	mg/kg/day	IRIS
RfC	7.0E-04	mg/m^3	IRIS
Oral Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	6.6E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	6.6E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	3.0E+02	mg/kg	ACGIH
Dermal LD50:	5.9E+02	mg/kg	ACGIH
Gas Inhal LC50:	5.9E+00	ppm	RTECS
Dust Inhal LC50:	1.0E+02	mg/L	RTECS
ACUTE			
Fresh CMC:	2.4E+00	µg/L	NRWQC
Salt CMC:	9.0E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	4.3E-03	µg/L	NRWQC
Salt CCC:	4.0E-03	µg/L	NRWQC
Fresh Ecol LC50:	8.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	3.0E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+03	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	6.7E+05	days	CHEMFATE
Volatility:	2.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+03	days	CHEMFATE
Radio:		days	
Log Kow:	6.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:	1.6E+00	g/mL @ 25 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.9E-07	Torr	PHYSPROP
Henry's Law:	7.0E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.3E-02	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	8.3E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.7E+04		ECOTOX
Salt BCF:	2.6E+04		ECOTOX
Log Kow:	6.1E+00		EPI_EXP
Water Solub:	1.3E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	1.7E+02	°C
Formula:	C10H6Cl8	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chlordane

CAS Number: 012789-03-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.002		Water Solub:	1.3E-02							
Gas Migration:	6		Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	5000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E-03	mg/L	Cancer Risk:	1.8E+00	mg/kg	MCL:		pCi/L
Cancer Risk:	2E-05	mg/m3	Cancer Risk:	1.9E-04	mg/L	Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	7E-04	mg/m3	Non Cancer Risk:	7E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E-03	mg/L	FDAAL:	3E-01	ppm	ACUTE					
Cancer Risk:	1.9E-04	mg/L	Cancer Risk:	9.0E-03	mg/kg	Fresh CMC:	2.4E+00	µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:	9.0E-02	µg/L			
						CHRONIC					
						Fresh CCC:	4.3E-03	µg/L			
						Salt CCC:	4.0E-03	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chlordane, alpha-

CAS Number:

005103-71-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	2.0E-04	mg/kg/day	IRIS
RfC	7.0E-04	mg/m^3	IRIS
Oral Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	6.6E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	6.6E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	3.0E+02	mg/kg	ACGIH
Dermal LD50:	5.9E+02	mg/kg	ACGIH
Gas Inhal LC50:	5.9E+00	ppm	RTECS
Dust Inhal LC50:	1.0E+02	mg/L	RTECS
ACUTE			
Fresh CMC:	2.4E+00	µg/L	NRWQC
Salt CMC:	9.0E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	4.3E-03	µg/L	NRWQC
Salt CCC:	4.0E-03	µg/L	NRWQC
Fresh Ecol LC50:	4.2E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.8E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.6E-05	Torr	PHYSPROP
Henry's Law:	3.4E-04	atm-m3/mol	PHYSPROP
Water Solub:	5.6E-02	mg/L	PHYSPROP
Distrib Coef:	1.0E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+04		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.8E+04		ECOTOX
Salt BCF:			
Log Kow:	6.2E+00		EPI_EXP
Water Solub:	5.6E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	1.7E+02	°C
Formula:	C10H6Cl8	

CLASS INFORMATION

Parent Substance

Chlordane

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chlordane, alpha-

CAS Number:

005103-71-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.02
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 5.6E-02
Distrib: 1.0E+04
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 2E-05 mg/m3
Non Cancer Risk: 7E-04 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.9E-04 mg/L
Non Cancer Risk: 7E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.8E+00 mg/kg
Non Cancer Risk: 3E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.9E-04 mg/L
Non Cancer Risk: 7E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 9.0E-03 mg/kg
Non Cancer Risk: 6E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 2.4E+00 µg/L
Salt CMC: 9.0E-02 µg/L

CHRONIC
Fresh CCC: 4.3E-03 µg/L
Salt CCC: 4.0E-03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chlordane, gamma-

CAS Number:

005103-74-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	2.0E-04	mg/kg/day	IRIS
RfC	7.0E-04	mg/m^3	IRIS
Oral Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	6.6E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	6.6E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.7E+02	mg/kg	RTECS
Dermal LD50:	5.9E+02	mg/kg	ACGIH
Gas Inhal LC50:	5.9E+00	ppm	RTECS
Dust Inhal LC50:	1.0E+02	mg/L	RTECS
ACUTE			
Fresh CMC:	2.4E+00	µg/L	NRWQC
Salt CMC:	9.0E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	4.3E-03	µg/L	NRWQC
Salt CCC:	4.0E-03	µg/L	NRWQC
Fresh Ecol LC50:	3.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	3.0E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	6.7E+05	days	CHEMFATE
Volatility:	2.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+03	days	HEDR
Radio:		days	
Log Kow:	6.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:	1.6E+00	g/mL @ 25 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.0E-05	Torr	PHYSPROP
Henry's Law:	4.8E-04	atm-m3/mol	PHYSPROP
Water Solub:	5.6E-02	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.0E+04		ECOTOX
Salt BCF:	8.3E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.8E+03		ECOTOX
Salt BCF:	2.6E+04		ECOTOX
Log Kow:	6.1E+00		EPI_EXP
Water Solub:	5.6E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	1.7E+02	°C
Formula:	C10H6Cl8	

CLASS INFORMATION

Parent Substance

Chlordane

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chlorobenzene

CAS Number:

000108-90-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:	1.4E-02	mg/kg/day	PPRTV
RfC	5.0E-02	mg/m^3	PPRTV
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	6.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	9.3E+01	days	THOMAS
Photolysis:	4.8E-02	days	CHEMFATE
Biodeg:	7.5E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	1.0E+00	days	THOMAS
Photolysis:	4.8E-02	days	CHEMFATE
Biodeg:	7.5E+01	days	CHEMFATE
Radio:		days	
Log Kow:	2.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E+01	Torr	PHYSPROP
Henry's Law:	3.1E-03	atm-m3/mol	PHYSPROP
Water Solub:	4.9E+02	mg/L	PHYSPROP
Distrib Coef:	3.5E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	4.1E+03		ECOTOX
Salt BCF:			
Log Kow:	2.8E+00		EPI_EXP
Water Solub:	4.9E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.5E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C6H5Cl	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chlorobenzene

CAS Number: 000108-90-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 4.9E+02
Distrib: 3.5E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.0007
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 100

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 5E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chloroform

CAS Number:

000067-66-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-02	mg/kg/day	IRIS
Inhal RfD:	2.5E-02	mg/kg/day	ATSDR
RfC	9.0E-02	mg/m^3	ATSDR
Oral Slope:	3.1E-02	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B		CALEPA
IUR:	2.3E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	8.0E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.5E+02	µg/L	ECOTOX
Salt Ecol LC50:	2.8E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.2E+06	days	HEDR
Volatility:	9.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.2E+06	days	HEDR
Volatility:	1.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	1.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:	1.4E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.9E+02	Torr	PHYSPROP
Henry's Law:	3.6E-03	atm-m3/mol	PHYSPROP
Water Solub:	7.9E+03	mg/L	PHYSPROP
Distrib Coef:	4.8E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.0E+00		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	6.9E+02		ECOTOX
Salt BCF:			
Log Kow:	1.9E+00		EPI_EXP
Water Solub:	7.9E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-6.3E+01	°C
Boiling Point:	6.1E+01	°C
Formula:	CHCl3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chloroform

CAS Number: 000067-66-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 7.9E+03
Distrib: 4.8E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 10

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.0E-04 mg/m3
Non Cancer Risk: 9E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 2.1E-03 mg/L
Non Cancer Risk: 1E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.0E+01 mg/kg
Non Cancer Risk: 7E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 2.1E-03 mg/L
Non Cancer Risk: 1E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1.0E-01 mg/kg
Non Cancer Risk: 1E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chromium

CAS Number:

007440-47-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.2E-06	mg/kg/day	IRIS
RfC	8.0E-06	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:	2.5E-03	mg/kg/day	SPHEM
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.2E+01	µg/L	ECOTOX
Salt Ecol LC50:	2.2E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.1E+01	
Density:	7.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	8.5E+02	ml/g	BAES
Geo Mean Sol:	1.6E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.3E+00		ECOTOX
Salt BCF:	3.0E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.2E+02		ECOTOX
Salt BCF:	3.0E+02		ECOTOX
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.6E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.9E+03	°C
Boiling Point:	2.6E+03	°C
Formula:	Cr	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chromium

CAS Number: 007440-47-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 8.5E+02
Geo Mean Sol: 1.6E+06
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 8E-06 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 4E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chromium(III)

CAS Number:

016065-83-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.5E+00	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	5.7E+02	µg/L	NRWQC
Salt CMC:	5.7E+02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	7.4E+01	µg/L	NRWQC
Salt CCC:	7.4E+01	µg/L	NRWQC
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.1E+01	
Density:	7.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.8E+06	ml/g	SSG
Geo Mean Sol:	1.6E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	1.1E+02		VERSAR
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:	1.5E+02		VERSAR
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.6E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.9E+03	°C
Boiling Point:	2.6E+03	°C
Formula:	-	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chromium(III)

CAS Number: 016065-83-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1		Toxicity:	1		Toxicity:	1				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	1.8E+06							
			Geo Mean Sol:	1.6E+06							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1		Toxicity:	1		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/	1E-01	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1.1E+05	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	2.3E+01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1E-01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	5.7E+02	µg/L			
Non Cancer Risk:	2.3E+01	mg/L	Non Cancer Risk:	2.0E+03	mg/kg	Salt CMC:	5.7E+02	µg/L			
						CHRONIC					
						Fresh CCC:	7.4E+01	µg/L			
						Salt CCC:	7.4E+01	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chromium(VI)

CAS Number:

018540-29-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.2E-06	mg/kg/day	IRIS
RfC	8.0E-06	mg/m^3	IRIS
Oral Slope:	5.0E-01	(mg/kg/day)^-1	NJDEP
Oral Wt-of-Evid:			
IUR:	1.2E-02	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	4.2E+01	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:	A		EPA_ED10
Inhal ED10:	2.5E-03	mg/kg/day	SPHEM
Inhal ED10 Wgt:	A		EPA_ED10
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	1.6E+01	µg/L	NRWQC
Salt CMC:	1.1E+03	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.1E+01	µg/L	NRWQC
Salt CCC:	5.0E+01	µg/L	NRWQC
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.1E+01	
Density:	7.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.9E+01	ml/g	SSG
Geo Mean Sol:	1.6E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.0E+00		VERSAR
Salt BCF:	1.9E+02		VERSAR
ENVIRONMENTAL			
Fresh BCF:	1.0E+00		VERSAR
Salt BCF:	1.9E+02		VERSAR
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.6E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.9E+03	°C
Boiling Point:	2.6E+03	°C
Formula:	-	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Chrysene

CAS Number:

000218-01-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E-03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-05	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E-02	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.2E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:	1.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+02	days	THOMAS
Photolysis:	1.8E-01	days	CHEMFATE
Biodeg:	9.9E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.5E+00	days	THOMAS
Photolysis:	1.8E-01	days	CHEMFATE
Biodeg:	9.9E+02	days	HEDR
Radio:		days	
Log Kow:	5.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.2E+02	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.2E-09	Torr	PHYSPROP
Henry's Law:	5.2E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.0E-03	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	8.2E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	6.0E+03		ECOTOX
Salt BCF:	1.5E+03		ECOTOX
Log Kow:	5.8E+00		EPI_EXP
Water Solub:	2.0E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.5E+02	°C
Boiling Point:	4.4E+02	°C
Formula:	C18H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Chrysene

CAS Number: 000218-01-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.0002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 2.0E-03
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 8.7E-05 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 2.9E-03 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.0E+01 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 2.9E-03 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 4.3E-01 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cobalt

CAS Number:

007440-48-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	PPRTV
Inhal RfD:	1.7E-06	mg/kg/day	PPRTV
RfC	6.0E-06	mg/m^3	PPRTV
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	9.0E-03	(µg/m3)^-1	PPRTV
IUR Wt-of-Evid:	B		PPRTV
Inhal Slope:	3.1E+01	(mg/kg/day)^-1	PPRTV
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+02	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.8E+01	
Density:	8.8E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+01	ml/g	BAES
Geo Mean Sol:	9.9E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
Log Kow:			
Water Solub:			
Geo Mean Sol:	9.9E+04	mg/L	CRC

OTHER DATA

Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Co	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cobalt

CAS Number: 007440-48-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	4.5E+01							
			Geo Mean Sol:	9.9E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	5000		Salt:	5000				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:	2E-07	mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	2E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	6E-06	mg/m3	Non Cancer Risk:	4E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	4E-03	mg/L	Non Cancer Risk:	4E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cobalt 57 (radionuclide)

CAS Number:

013981-50-5

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.4E-12	(pCi)^-1	OSRTI_PRG
	Soil: 2.7E-12	(pCi)^-1	OSRTI_PRG
	Water: 1.0E-12	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.0E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	3.5E-07	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.3E-01		OSRTI_PRG
Area Correct.:	9.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+02	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+02	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	5.6E+01		
Density:	8.8E+00	g/mL @	25.0 °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+01	ml/g	BAES
Geo Mean Sol:	9.9E+04	mg/L	CRC

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
Log Kow:			
Water Solub:			
Geo Mean Sol:	9.9E+04	mg/L	CRC

OTHER DATA		
Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Co-57	

CLASS INFORMATION

Parent Substance

Cobalt

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cobalt 57 (radionuclide)

CAS Number: 013981-50-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub:
Distrib: 4.5E+01
Geo Mean Sol: 9.9E+04
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 5000

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1E+03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 1E+03 pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: 2.53E+00 pCi/m3
DW: 5.08E+01 pCi/L
FC: 1.18E+03 pCi/kg
Soil Ing: 7.99E+06 pCi/kg
Soil Gam: 8.15E+03 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E+03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cobalt 60 (radionuclide)

CAS Number:

010198-40-0

TOXICITY			
Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 2.2E-11	(pCi)^-1	OSRTI_PRG
	Soil: 4.0E-11	(pCi)^-1	OSRTI_PRG
	Water: 1.5E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.5E-11	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.2E-05	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.3E-01		OSRTI_PRG
Area Correct.:	8.3E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.9E+03	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.9E+03	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	5.9E+01		
Density:	8.8E+00	g/mL @	25.0 °C

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+01	ml/g	BAES
Geo Mean Sol:	9.9E+04	mg/L	CRC

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.5E+01		ECOTOX
Salt BCF:	2.5E+03		ECOTOX
Log Kow:			
Water Solub:			
Geo Mean Sol:	9.9E+04	mg/L	CRC

OTHER DATA		
Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Co-60	

CLASS INFORMATION

Parent Substance

Cobalt

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cobalt 60 (radionuclide)

CAS Number: 010198-40-0

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	4.5E+01							
			Geo Mean Sol:	9.9E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	5000		Salt:	5000				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1E+02	mg/L	Cancer Risk:		mg/kg	MCL:	1E+02	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.47E-01	pCi/m3
									DW:	3.37E+00	pCi/L
									FC:	7.90E+01	pCi/kg
									Soil Ing:	7.89E+04	pCi/kg
									Soil Gam:	3.88E+01	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1E+02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Copper

CAS Number:

007440-50-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-02	mg/kg/day	HEAST
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	4.1E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	2.3E+00	µg/L	NRWQC
Salt CMC:	4.8E+00	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.4E+00	µg/L	NRWQC
Salt CCC:	3.1E+00	µg/L	NRWQC
Fresh Ecol LC50:	1.6E-01	µg/L	ECOTOX
Salt Ecol LC50:	5.6E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-5.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	6.3E+01	
Density:	8.9E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	3.5E+01	ml/g	BAES
Geo Mean Sol:	3.3E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.8E+04		ECOTOX
Salt BCF:	5.1E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	8.8E+04		ECOTOX
Salt BCF:	5.1E+05		ECOTOX
Log Kow:	-5.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	3.3E+04	mg/L	CRC

OTHER DATA

Melting Point:	1.0E+03	°C
Boiling Point:	2.5E+03	°C
Formula:	Cu	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Copper

CAS Number: 007440-50-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	3.5E+01							
			Geo Mean Sol:	3.3E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.3E+00	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	3E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	6E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.3E+00	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	2.3E+00	µg/L			
Non Cancer Risk:	6E-01	mg/L	Non Cancer Risk:	5E+01	mg/kg	Salt CMC:	4.8E+00	µg/L			
						CHRONIC					
						Fresh CCC:	1.4E+00	µg/L			
						Salt CCC:	3.1E+00	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cumene

CAS Number:

000098-82-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	IRIS
Inhal RfD:	1.1E-01	mg/kg/day	IRIS
RfC	4.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.7E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.3E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.9E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.9E+01	days	CHEMFATE
Radio:		days	
Log Kow:	3.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	8.6E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.5E+00	Torr	PHYSPROP
Henry's Law:	1.1E-02	atm-m3/mol	PHYSPROP
Water Solub:	6.1E+01	mg/L	PHYSPROP
Distrib Coef:	1.0E+02	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.6E+00		EPI_EXP
Water Solub:	6.1E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.6E+01	°C
Boiling Point:	1.5E+02	°C
Formula:	C9H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cumene

CAS Number:

000098-82-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10		Toxicity:		10		Toxicity:		10	
Gas Mobility:		1		Water Solub:		6.1E+01					
Gas Migration:		17		Distrib:		1.0E+02					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
				Non Liq		Karst: 2.0E-01					
						Non Karst: 2.0E-03					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10		Toxicity:		10		Fresh Tox:		100	
								Salt Tox:		10	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		500		Fresh:		500	
				Salt:		500		Salt:		500	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	4E-01	mg/m3	Non Cancer Risk:	1E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+00	mg/L	Non Cancer Risk:	1E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cyanamide

CAS Number:

000420-04-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.2E+02	mg/kg	ACGIH
Dermal LD50:	8.4E+01	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.8E+04	µg/L	ECOTOX
Salt Ecol LC50:	6.3E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+05	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+05	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-8.2E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.2E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.7E-03	Torr	PHYSPROP
Henry's Law:	2.5E-10	atm-m3/mol	PHYSPROP
Water Solub:	5.0E+05	mg/L	PHYSPROP
Distrib Coef:	7.0E-01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-8.2E-01		EPI_EXP
Water Solub:	5.0E+05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.4E+01	°C
Boiling Point:	8.3E+01	°C
Formula:	CH2N2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Cyanamide

CAS Number: 000420-04-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.2
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 5.0E+05
Distrib: 7.0E-01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10
Salt Tox: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cyanide

CAS Number:

000057-12-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-04	mg/kg/day	IRIS
Inhal RfD:	2.2E-04	mg/kg/day	IRIS
RfC	8.0E-04	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.0E+00	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	2.2E+01	µg/L	NRWQC
Salt CMC:	1.0E+00	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.2E+00	µg/L	NRWQC
Salt CCC:	1.0E+00	µg/L	NRWQC
Fresh Ecol LC50:	4.3E+01	µg/L	ECOTOX
Salt Ecol LC50:	9.6E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-6.9E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+01	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.0E+02	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:	9.5E+04	mg/L	PHYSPROP
Distrib Coef:	9.9E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-6.9E-01		PHYSPROP
Water Solub:	9.5E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	CN(-)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Cyanide

CAS Number:

000057-12-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 9.5E+04
Distrib: 9.9E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 0.4
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 0.4
Lake: 0.07
Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 0.4
Lake: 0.07
Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 8E-04 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 2.2E+01 µg/L
Salt CMC: 1.0E+00 µg/L
CHRONIC
Fresh CCC: 5.2E+00 µg/L
Salt CCC: 1.0E+00 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: DDD

CAS Number:

000072-54-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.4E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:	7.6E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	7.6E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	1.1E+02	mg/kg	RTECS
Dermal LD50:	1.2E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	9.9E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.0E+04	days	CHEMFATE
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.0E+04	days	CHEMFATE
Volatility:	8.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
Log Kow:	6.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.3E-06	Torr	PHYSPROP
Henry's Law:	6.6E-06	atm-m3/mol	PHYSPROP
Water Solub:	9.0E-02	mg/L	PHYSPROP
Distrib Coef:	1.7E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.6E+06		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.6E+06		ECOTOX
Salt BCF:	5.6E+01		ECOTOX
Log Kow:	6.0E+00		EPI_EXP
Water Solub:	9.0E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	3.5E+02	°C
Formula:	C14H10Cl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: DDD

CAS Number: 000072-54-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.002		Water Solub:	9.0E-02							
Gas Migration:	6		Distrib:	1.7E+04							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	2.6E+00	mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:	2.8E-04	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	2.8E-04	mg/L	Cancer Risk:	1.3E-02	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: DDE

CAS Number:

000072-55-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.4E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:	2.6E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	2.6E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	7.0E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.8E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:	1.0E+00	days	CHEMFATE
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.7E+00	days	THOMAS
Photolysis:	1.0E+00	days	CHEMFATE
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
Log Kow:	6.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.0E-06	Torr	PHYSPROP
Henry's Law:	4.1E-05	atm-m3/mol	PHYSPROP
Water Solub:	4.0E-02	mg/L	PHYSPROP
Distrib Coef:	1.7E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.0E+05		ECOTOX
Salt BCF:	9.1E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.1E+05		ECOTOX
Salt BCF:	9.1E+04		ECOTOX
Log Kow:	6.5E+00		EPI_EXP
Water Solub:	4.0E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.9E+01	°C
Boiling Point:	3.3E+02	°C
Formula:	C14H8Cl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: DDE

CAS Number:

000072-55-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 4.0E-02
Distrib: 1.7E+04
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.9E-04 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.8E+00 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.9E-04 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: 5E-02 ppm
Cancer Risk: 9.2E-03 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: DDT

CAS Number:

000050-29-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.4E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	9.7E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	3.3E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	1.7E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.7E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.5E+02	mg/kg	ACGIH
Dermal LD50:	2.5E+03	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	1.1E+00	µg/L	NRWQC
Salt CMC:	1.3E-01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.0E-03	µg/L	NRWQC
Salt CCC:	1.0E-03	µg/L	NRWQC
Fresh Ecol LC50:	1.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	7.0E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	8.0E+03	days	HEDR
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	8.0E+03	days	HEDR
Volatility:	7.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+03	days	HEDR
Radio:		days	
Log Kow:	6.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.6E-07	Torr	PHYSPROP
Henry's Law:	8.3E-06	atm-m3/mol	PHYSPROP
Water Solub:	5.5E-03	mg/L	PHYSPROP
Distrib Coef:	2.5E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.6E+05		ECOTOX
Salt BCF:	8.8E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.6E+05		ECOTOX
Salt BCF:	8.8E+03		ECOTOX
Log Kow:	6.9E+00		EPI_EXP
Water Solub:	5.5E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	3.6E+02	°C
Formula:	C14H9Cl5	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: DDT

CAS Number: 000050-29-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	0.002		Water Solub:	5.5E-03							
Gas Migration:	6		Distrib:	2.5E+04							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.8E+00	mg/kg	MCL:		pCi/L
Cancer Risk:	2.5E-05	mg/m3	Cancer Risk:	1.9E-04	mg/L	Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	7E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:	5E-02	ppm	ACUTE					
Cancer Risk:	1.9E-04	mg/L	Cancer Risk:	9.2E-03	mg/kg	Fresh CMC:	1.1E+00	µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:	1.3E-01	µg/L			
						CHRONIC					
						Fresh CCC:	1.0E-03	µg/L			
						Salt CCC:	1.0E-03	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Di-n-butyl phthalate

CAS Number:

000084-74-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.4E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	3.7E+02	ppm	RTECS
Dust Inhal LC50:	4.2E+03	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.8E+02	µg/L	ECOTOX
Salt Ecol LC50:	2.0E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.6E+03	days	CHEMFATE
Volatility:	1.6E+02	days	THOMAS
Photolysis:	1.4E+02	days	HEDR
Biodeg:	2.3E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.6E+03	days	CHEMFATE
Volatility:	2.4E+01	days	THOMAS
Photolysis:	1.4E+02	days	HEDR
Biodeg:	2.3E+01	days	HEDR
Radio:		days	
Log Kow:	4.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.7E+02	
Density:	1.0E+00	g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E-05	Torr	PHYSPROP
Henry's Law:	1.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.1E+01	mg/L	PHYSPROP
Distrib Coef:	1.7E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	5.0E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.0E+04		ECOTOX
Salt BCF:	2.3E+03		ECOTOX
Log Kow:	4.5E+00		EPI_EXP
Water Solub:	1.1E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.5E+01	°C
Boiling Point:	3.4E+02	°C
Formula:	C16H22O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Di-n-butyl phthalate

CAS Number:

000084-74-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 1.1E+01
Distrib: 1.7E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 10000

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 50000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Di-n-octyl phthalate

CAS Number:

000117-84-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-02	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.9E+02	days	CHEMFATE
Volatility:	1.9E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.9E+02	days	CHEMFATE
Volatility:	2.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	8.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E-07	Torr	PHYSPROP
Henry's Law:	2.5E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.2E-02	mg/L	PHYSPROP
Distrib Coef:	2.1E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.1E+02		VERSAR
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.8E+04		ECOTOX
Salt BCF:			
Log Kow:	8.1E+00		EPI_EXP
Water Solub:	2.2E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.5E+01	°C
Boiling Point:	2.2E+02	°C
Formula:	C24H38O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Di-n-octyl phthalate

CAS Number:

000117-84-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.0002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.2E-02
Distrib: 2.1E+04
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014
Chemical: Dibenz(a,h)anthracene

Publication Date: 06/20/2014
CAS Number: 000053-70-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E+00	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-03	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E+00	(mg/kg/day)^-1	RSL_TEF
Oral ED10:	2.8E-03	mg/kg/day	SPHEM
Oral ED10 Wgt:			
Inhal ED10:	2.8E-03	mg/kg/day	SPHEM
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	4.3E+02	days	THOMAS
Photolysis:	3.2E+01	days	HEDR
Biodeg:	9.4E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.9E+02	days	THOMAS
Photolysis:	3.2E+01	days	HEDR
Biodeg:	9.4E+02	days	HEDR
Radio:		days	
Log Kow:	6.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.5E-10	Torr	PHYSPROP
Henry's Law:	1.4E-07	atm-m3/mol	PHYSPROP
Water Solub:	2.4E-03	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.0E+04		ECOTOX
Salt BCF:			
Log Kow:	6.5E+00		EPI_EXP
Water Solub:	2.4E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.6E+02	°C
Boiling Point:	5.2E+02	°C
Formula:	C22H14	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dibenz(a,h)anthracene

CAS Number: 000053-70-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	2.4E-03							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	2.0E-02	mg/kg	MCL:		pCi/L
Cancer Risk:	8.7E-07	mg/m3	Cancer Risk:	2.9E-06	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	2.9E-06	mg/L	Cancer Risk:	4.3E-04	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibenzofuran

CAS Number:

000132-64-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-03	mg/kg/day	PPRTV APPEN
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.4E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.0E+00	g/mL @ 99.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.4E-03	Torr	PHYSPROP
Henry's Law:	2.1E-04	atm-m3/mol	PHYSPROP
Water Solub:	3.1E+00	mg/L	PHYSPROP
Distrib Coef:	1.3E+03	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	3.1E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.6E+01	°C
Boiling Point:	2.8E+02	°C
Formula:	C12H8O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dibenzofuran

CAS Number: 000132-64-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	0.2		Water Solub:	3.1E+00							
Gas Migration:	11		Distrib:	1.3E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-01						
				Non Karst:	2.0E-05						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-02	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-02	mg/L	Non Cancer Risk:	1E+00	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibromo-3-chloropropane, 1,2-

CAS Number:

000096-12-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-04	mg/kg/day	PPRTV
Inhal RfD:	5.7E-05	mg/kg/day	IRIS
RfC	2.0E-04	mg/m^3	IRIS
Oral Slope:	8.0E-01	(mg/kg/day)^-1	PPRTV
Oral Wt-of-Evid:	B		PPRTV
IUR:	6.0E-03	(µg/m3)^-1	PPRTV
IUR Wt-of-Evid:	B		PPRTV
Inhal Slope:	2.1E+01	(mg/kg/day)^-1	PPRTV
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.0E+04	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.4E+02	days	CHEMFATE
Volatility:	1.4E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.4E+02	days	CHEMFATE
Volatility:	1.7E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	2.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	2.0E+00	g/mL @ 14.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.8E-01	Torr	PHYSPROP
Henry's Law:	1.4E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.2E+03	mg/L	PHYSPROP
Distrib Coef:	1.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.9E+00		EPI_EXP
Water Solub:	1.2E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	6.0E+00	°C
Boiling Point:	1.9E+02	°C
Formula:	C3H5Br2Cl	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dibromo-3-chloropropane, 1,2-

CAS Number: 000096-12-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	1		Water Solub:	1.2E+03							
Gas Migration:	11		Distrib:	1.7E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10				
						Salt Tox:	10				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	50		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E-04	mg/L	Cancer Risk:	1E-01	mg/kg	MCL:		pCi/L
Cancer Risk:	1E-07	mg/m3	Cancer Risk:	2E-05	mg/L	Non Cancer Risk:	1E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	2E-04	mg/m3	Non Cancer Risk:	3E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E-04	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	2E-05	mg/L	Cancer Risk:	3E-03	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-03	mg/L	Non Cancer Risk:	2E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibromoethane, 1,2-

CAS Number:

000106-93-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.5E-03	mg/kg/day	IRIS
RfC	9.0E-03	mg/m^3	IRIS
Oral Slope:	2.0E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	6.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	2.1E+00	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.5E+04	µg/L	ECOTOX
Salt Ecol LC50:	4.8E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.9E+03	days	CHEMFATE
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.9E+03	days	CHEMFATE
Volatility:	1.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	1.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.8E+02	
Density:	2.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E+01	Torr	PHYSPROP
Henry's Law:	6.5E-04	atm-m3/mol	PHYSPROP
Water Solub:	3.9E+03	mg/L	PHYSPROP
Distrib Coef:	6.0E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.9E+00		EPI_EXP
Water Solub:	3.9E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.9E+00	°C
Boiling Point:	1.3E+02	°C
Formula:	C2H4Br2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dibromoethane, 1,2-

CAS Number: 000106-93-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	1		Water Solub:	3.9E+03							
Gas Migration:	17		Distrib:	6.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	5				
			Salt:	5		Salt:	5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	3E-01	mg/kg	MCL:		pCi/L
Cancer Risk:	4E-06	mg/m3	Cancer Risk:	3E-05	mg/L	Non Cancer Risk:	7E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	9E-03	mg/m3	Non Cancer Risk:	1E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	3E-05	mg/L	Cancer Risk:	1E-03	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-01	mg/L	Non Cancer Risk:	1E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibutyltin

CAS Number:

001002-53-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	8.0E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.6E+00	Torr	PHYSPROP
Henry's Law:	3.8E-01	atm-m3/mol	PHYSPROP
Water Solub:	1.5E+03	mg/L	PHYSPROP
Distrib Coef:	1.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.4E+00		EPI_EXP
Water Solub:	1.5E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	1.7E+02	°C
Formula:	C8H18Sn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibutyltin

CAS Number:

001002-53-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Toxicity:		10000	
Gas Mobility:		1		Water Solub:		1.5E+03					
Gas Migration:		17		Distrib:		1.2E+02					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
				Non Liq		Karst: 1.0E+00					
						Non Karst: 1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Fresh Tox:		0	
								Salt Tox:		0	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		5		Fresh:		5	
				Salt:		5		Salt:		5	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	2E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	4E-03	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	4E-03	mg/L	Non Cancer Risk:	4E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dibutyltin dichloride

CAS Number:

000683-18-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.9E-04	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E+01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	5.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.8E-02	Torr	PHYSPROP
Henry's Law:	3.0E-03	atm-m3/mol	PHYSPROP
Water Solub:	9.2E+01	mg/L	PHYSPROP
Distrib Coef:	2.8E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	5.0E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.0E+01		ECOTOX
Salt BCF:			
Log Kow:	1.5E+00		EPI_EXP
Water Solub:	9.2E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.2E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C8H18Cl2Sn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dibutyltin dichloride

CAS Number: 000683-18-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.2
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 9.2E+01
Distrib: 2.8E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6.1E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3.0E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6.1E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 5.2E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichlorobenzene, 1,4-

CAS Number:

000106-46-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-02	mg/kg/day	ATSDR
Inhal RfD:	2.2E-01	mg/kg/day	IRIS
RfC	8.0E-01	mg/m^3	IRIS
Oral Slope:	5.4E-03	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B		CALEPA
IUR:	1.1E-05	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		CALEPA
Inhal Slope:	3.8E-02	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.8E+02	µg/L	ECOTOX
Salt Ecol LC50:	6.3E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+01	days	CHEMFATE
Radio:		days	
Log Kow:	3.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.4E+02	
Density:	1.2E+00	g/mL @ 55.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.7E+00	Torr	PHYSPROP
Henry's Law:	2.4E-03	atm-m3/mol	PHYSPROP
Water Solub:	8.1E+01	mg/L	PHYSPROP
Distrib Coef:	5.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.4E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.8E+03		ECOTOX
Salt BCF:			
Log Kow:	3.4E+00		EPI_EXP
Water Solub:	8.1E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	5.2E+01	°C
Boiling Point:	1.7E+02	°C
Formula:	C6H4Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichlorobenzene, 1,4-

CAS Number: 000106-46-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:	1		Water Solub:	8.1E+01							
Gas Migration:	17		Distrib:	5.7E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	2.0E-01						
				Non Karst:	2.0E-03						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	5000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	7.5E-02	mg/L	Cancer Risk:	1.1E+02	mg/kg	MCL:		pCi/L
Cancer Risk:	2.2E-04	mg/m3	Cancer Risk:	1.2E-02	mg/L	Non Cancer Risk:	5E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	8E-01	mg/m3	Non Cancer Risk:	1E+00	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	7.5E-02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.2E-02	mg/L	Cancer Risk:	5.8E-01	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+00	mg/L	Non Cancer Risk:	9E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethane, 1,1-

CAS Number:

000075-34-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	5.7E-03	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	C		CALEPA
IUR:	1.6E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		CALEPA
Inhal Slope:	5.6E-03	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.5E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.4E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.5E+02	days	HEDR
Radio:		days	
Log Kow:	1.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.8E+01	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.2E+02	Torr	PHYSPROP
Henry's Law:	5.6E-03	atm-m3/mol	PHYSPROP
Water Solub:	5.0E+03	mg/L	PHYSPROP
Distrib Coef:	4.8E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.7E+00		EPI_EXP
Water Solub:	5.0E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.6E+01	°C
Boiling Point:	5.7E+01	°C
Formula:	C2H4Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichloroethane, 1,1-

CAS Number: 000075-34-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 5.0E+03
Distrib: 4.8E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.5E-03 mg/m3
Non Cancer Risk: 3E+00 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.1E-02 mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.1E+02 mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.1E-02 mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 5.5E-01 mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethane, 1,2-

CAS Number:

000107-06-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	PPRTV APPEN
Inhal RfD:	2.0E-03	mg/kg/day	PPRTV
RfC	7.0E-03	mg/m^3	PPRTV
Oral Slope:	9.1E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	2.6E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	9.1E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+05	µg/L	ECOTOX
Salt Ecol LC50:	4.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.8E+07	days	CHEMFATE
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.8E+07	days	CHEMFATE
Volatility:	9.6E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	1.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.8E+01	
Density:	1.2E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.8E+01	Torr	PHYSPROP
Henry's Law:	1.1E-03	atm-m3/mol	PHYSPROP
Water Solub:	8.6E+03	mg/L	PHYSPROP
Distrib Coef:	6.0E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.0E+00		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.0E+00		ECOTOX
Salt BCF:			
Log Kow:	1.4E+00		EPI_EXP
Water Solub:	8.6E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.5E+01	°C
Boiling Point:	8.3E+01	°C
Formula:	C2H4Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichloroethane, 1,2-

CAS Number: 000107-06-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 8.6E+03
Distrib: 6.0E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10
Salt Tox: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 9.3E-05 mg/m3
Non Cancer Risk: 7E-03 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 5E-03 mg/L
Cancer Risk: 7.3E-04 mg/L
Non Cancer Risk: 9E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 7.0E+00 mg/kg
Non Cancer Risk: 4E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 5E-03 mg/L
Cancer Risk: 7.3E-04 mg/L
Non Cancer Risk: 9E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 3.4E-02 mg/kg
Non Cancer Risk: 8E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,1-

CAS Number:

000075-35-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-02	mg/kg/day	IRIS
Inhal RfD:	5.7E-02	mg/kg/day	IRIS
RfC	2.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	9.0E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+05	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.3E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	2.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.6E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.0E+02	Torr	PHYSPROP
Henry's Law:	2.6E-02	atm-m3/mol	PHYSPROP
Water Solub:	2.4E+03	mg/L	PHYSPROP
Distrib Coef:	4.8E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.1E+00		EPI_EXP
Water Solub:	2.4E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.2E+02	°C
Boiling Point:	3.1E+01	°C
Formula:	C2H2Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichloroethylene, 1,1-

CAS Number: 000075-35-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 2.4E+03
Distrib: 4.8E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 1

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 7E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 7E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 7E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 7E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 6E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2- (Mixed Isomers)

CAS Number:

000540-59-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-03	mg/kg/day	HEAST
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.2E+05	µg/L	ECOTOX
Salt Ecol LC50:	2.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	7.4E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.6E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E+02	Torr	PHYSPROP
Henry's Law:	4.0E-03	atm-m3/mol	PHYSPROP
Water Solub:	3.5E+03	mg/L	PHYSPROP
Distrib Coef:	6.0E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+00		EPI_EXP
Water Solub:	3.5E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-5.7E+01	°C
Boiling Point:	5.5E+01	°C
Formula:	N/A	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2- (Mixed Isomers)

CAS Number:

000540-59-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 3.5E+03
Distrib: 6.0E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2-cis-

CAS Number:

000156-59-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.4E-01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.6E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E+02	Torr	PHYSPROP
Henry's Law:	4.0E-03	atm-m3/mol	PHYSPROP
Water Solub:	6.4E+03	mg/L	PHYSPROP
Distrib Coef:	6.0E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+00		EPI_EXP
Water Solub:	6.4E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.0E+01	°C
Boiling Point:	6.0E+01	°C
Formula:	C2H2Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2-cis-

CAS Number:

000156-59-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 6.4E+03
Distrib: 6.0E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 7E-02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 7E-02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 06/20/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2-trans-

CAS Number:

000156-60-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:	2.2E-01	mg/kg/day	ATSDR-Int
RfC	7.9E-01	mg/m^3	ATSDR-Int
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.7E+05	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.3E-01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.6E+01	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.3E+02	Torr	PHYSPROP
Henry's Law:	9.3E-03	atm-m3/mol	PHYSPROP
Water Solub:	4.5E+03	mg/L	PHYSPROP
Distrib Coef:	6.0E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+00		EPI_EXP
Water Solub:	4.5E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.9E+01	°C
Boiling Point:	4.8E+01	°C
Formula:	C2H2Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 06/20/2014

Publication Date:

06/20/2014

Chemical: Dichloroethylene, 1,2-trans-

CAS Number:

000156-60-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 4.5E+03
Distrib: 6.0E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 1

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 8E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E-01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichlorophenol, 2,4-

CAS Number:

000120-83-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	4.7E+01	mg/kg	RTECS
Dermal LD50:	7.9E+02	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.6E+00	µg/L	ECOTOX
Salt Ecol LC50:	5.1E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:	1.2E-01	days	HEDR
Biodeg:	6.0E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.5E+00	days	THOMAS
Photolysis:	1.2E-01	days	HEDR
Biodeg:	6.0E+00	days	CHEMFATE
Radio:		days	
Log Kow:	3.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.0E-02	Torr	PHYSPROP
Henry's Law:	4.2E-06	atm-m3/mol	PHYSPROP
Water Solub:	4.5E+03	mg/L	PHYSPROP
Distrib Coef:	7.4E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	4.9E+03		ECOTOX
Salt BCF:			
Log Kow:	3.0E+00		EPI_EXP
Water Solub:	4.5E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.5E+01	°C
Boiling Point:	2.1E+02	°C
Formula:	C6H4Cl2O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichlorophenol, 2,4-

CAS Number: 000120-83-2

ASSIGNED FACTOR VALUES														
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY								
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>							
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000							
Gas Mobility:	0.2		Water Solub:	4.5E+03										
Gas Migration:	11		Distrib:	7.4E+01										
			Geo Mean Sol:											
			Mobility											
			Liquid	Karst:	1.0E+00									
				Non Karst:	1.0E-02									
			Non Liq	Karst:	1.0E+00									
				Non Karst:	1.0E-02									
SURFACE WATER PATHWAY														
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL								
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>							
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10000							
						Salt Tox:	100							
Persistence			Persistence			Persistence								
River:	0.0007		River:	0.0007		River:	0.0007							
Lake:	0.07		Lake:	0.07		Lake:	0.07							
			Bioaccumulation			Bioaccumulation								
			Fresh:	50		Fresh:	5000							
			Salt:	50		Salt:	5000							
BENCHMARKS														
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L			
NESHAPS:			MCLG:			Non Cancer Risk:	2E+02	mg/kg	UMTRCA:		pCi/kg			
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK					
Non Cancer Risk:		mg/m3	Non Cancer Risk:	4E-02	mg/L				Air:		pCi/m3			
									DW:		pCi/L			
									FC:		pCi/kg			
									Soil Ing:		pCi/kg			
									Soil Gam:		pCi/kg			
SURFACE WATER PATHWAY														
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL								
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>						
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE								
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L						
Non Cancer Risk:	4E-02	mg/L	Non Cancer Risk:	4E+00	mg/kg	Salt CMC:		µg/L						
									CHRONIC					
									Fresh CCC:		µg/L			
									Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloropropane, 1,2-

CAS Number:

000078-87-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-02	mg/kg/day	ATSDR
Inhal RfD:	1.1E-03	mg/kg/day	IRIS
RfC	4.0E-03	mg/m^3	IRIS
Oral Slope:	3.6E-02	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B		CALEPA
IUR:	1.0E-05	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		CALEPA
Inhal Slope:	3.5E-02	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.2E+04	µg/L	ECOTOX
Salt Ecol LC50:	2.6E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	5.7E+03	days	CHEMFATE
Volatility:	9.3E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	5.7E+03	days	CHEMFATE
Volatility:	1.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+03	days	HEDR
Radio:		days	
Log Kow:	1.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.3E+01	Torr	PHYSPROP
Henry's Law:	2.8E-03	atm-m3/mol	PHYSPROP
Water Solub:	2.8E+03	mg/L	PHYSPROP
Distrib Coef:	9.2E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.9E+00		EPI_EXP
Water Solub:	2.8E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.0E+02	°C
Boiling Point:	9.5E+01	°C
Formula:	C3H6Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dichloropropane, 1,2-

CAS Number: 000078-87-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	1		Water Solub:	2.8E+03							
Gas Migration:	17		Distrib:	9.2E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10				
						Salt Tox:	10				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	5				
			Salt:	5		Salt:	5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	5E-03	mg/L	Cancer Risk:	1.7E+01	mg/kg	MCL:		pCi/L
Cancer Risk:	2E-04	mg/m3	Cancer Risk:	1.8E-03	mg/L	Non Cancer Risk:	7E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	4E-03	mg/m3	Non Cancer Risk:	1E+00	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	5E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.8E-03	mg/L	Cancer Risk:	8.7E-02	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+00	mg/L	Non Cancer Risk:	1E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloropropene, 1,3-

CAS Number:

000542-75-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-02	mg/kg/day	IRIS
Inhal RfD:	5.7E-03	mg/kg/day	IRIS
RfC	2.0E-02	mg/m^3	IRIS
Oral Slope:	1.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	4.0E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	1.4E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.1E+02	µg/L	ECOTOX
Salt Ecol LC50:	5.6E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.1E+01	days	HEDR
Volatility:	9.3E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.1E+01	days	HEDR
Volatility:	1.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.4E+01	Torr	PHYSPROP
Henry's Law:	3.5E-03	atm-m3/mol	PHYSPROP
Water Solub:	2.8E+03	mg/L	PHYSPROP
Distrib Coef:	1.0E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+00		EPI_EXP
Water Solub:	2.8E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-5.0E+01	°C
Boiling Point:	1.1E+02	°C
Formula:	C3H4C12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dichloropropene, 1,3-

CAS Number:

000542-75-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.8E+03
Distrib: 1.0E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6E-04 mg/m3
Non Cancer Risk: 2E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 6E-04 mg/L
Non Cancer Risk: 4E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 6E+00 mg/kg
Non Cancer Risk: 2E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 6E-04 mg/L
Non Cancer Risk: 4E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 3E-02 mg/kg
Non Cancer Risk: 4E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dieldrin

CAS Number:

000060-57-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-05	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.6E+01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	4.6E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.6E+01	(mg/kg/day)^-1	IRIS
Oral ED10:	4.2E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	4.2E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	3.7E+01	mg/kg	ACGIH
Dermal LD50:	6.0E+01	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	2.4E-01	µg/L	NRWQC
Salt CMC:	7.1E-01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.6E-02	µg/L	NRWQC
Salt CCC:	1.9E-03	µg/L	NRWQC
Fresh Ecol LC50:	3.5E-01	µg/L	ECOTOX
Salt Ecol LC50:	4.0E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.8E+03	days	CHEMFATE
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.0E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.8E+03	days	CHEMFATE
Volatility:	6.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.0E+03	days	HEDR
Radio:		days	
Log Kow:	5.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.8E+02	
Density:	1.7E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.8E-06	Torr	PHYSPROP
Henry's Law:	1.0E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.9E-01	mg/L	PHYSPROP
Distrib Coef:	3.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	5.7E+05		ECOTOX
Salt BCF:	2.8E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.7E+05		ECOTOX
Salt BCF:	4.9E+04		ECOTOX
Log Kow:	5.4E+00		EPI_EXP
Water Solub:	1.9E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	3.3E+02	°C
Formula:	C12H8Cl6O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dieldrin

CAS Number:

000060-57-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.002		Water Solub:	1.9E-01							
Gas Migration:	6		Distrib:	3.0E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	5000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.0E-02	mg/kg	MCL:		pCi/L
Cancer Risk:	5.2E-07	mg/m3	Cancer Risk:	4.2E-06	mg/L	Non Cancer Risk:	3E+00	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	7E-04	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:	2E-02	ppm	ACUTE					
Cancer Risk:	4.2E-06	mg/L	Cancer Risk:	1.9E-04	mg/kg	Fresh CMC:	2.4E-01	µg/L			
Non Cancer Risk:	7E-04	mg/L	Non Cancer Risk:	6E-02	mg/kg	Salt CMC:	7.1E-01	µg/L			
						CHRONIC					
						Fresh CCC:	5.6E-02	µg/L			
						Salt CCC:	1.9E-03	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Diethyl phthalate

CAS Number:

000084-66-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	9.5E+03	mg/kg	ACGIH
Dermal LD50:	3.0E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.2E+04	µg/L	ECOTOX
Salt Ecol LC50:	4.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.2E+03	days	HEDR
Volatility:	1.9E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.2E+03	days	HEDR
Volatility:	6.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	5.6E+01	days	HEDR
Radio:		days	
Log Kow:	2.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.2E+02	
Density:	1.2E+00	g/mL @ 14.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.1E-03	Torr	PHYSPROP
Henry's Law:	6.1E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+03	mg/L	PHYSPROP
Distrib Coef:	1.5E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.1E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.0E+02		ECOTOX
Salt BCF:			
Log Kow:	2.4E+00		EPI_EXP
Water Solub:	1.0E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.0E+01	°C
Boiling Point:	2.9E+02	°C
Formula:	C12H14O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Diethyl phthalate

CAS Number: 000084-66-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1			Toxicity:	1			Toxicity:	1		
Gas Mobility:	0.2			Water Solub:	1.0E+03						
Gas Migration:	11			Distrib:	1.5E+01						
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
				Non Liq	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1			Toxicity:	1			Fresh Tox:	10		
								Salt Tox:	100		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	500			Fresh:	500		
				Salt:	500			Salt:	500		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	6E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E+01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+01	mg/L	Non Cancer Risk:	1E+03	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date:

06/20/2014

Chemical: Dimethyl phenol, 2,4-

CAS Number:

000105-67-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	8.0E+02	mg/kg	RTECS
Dermal LD50:	1.0E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	9.4E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.9E+01	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	2.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	1.0E+00	g/mL @ 14.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E-01	Torr	PHYSPROP
Henry's Law:	9.5E-07	atm-m3/mol	PHYSPROP
Water Solub:	7.8E+03	mg/L	PHYSPROP
Distrib Coef:	7.4E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.5E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.5E+02		ECOTOX
Salt BCF:			
Log Kow:	2.3E+00		EPI_EXP
Water Solub:	7.8E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.4E+01	°C
Boiling Point:	2.1E+02	°C
Formula:	C8H10O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date: 06/20/2014

Chemical: Dimethyl phenol, 2,4-

CAS Number: 000105-67-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	1		Water Solub:	7.8E+03							
Gas Migration:	11		Distrib:	7.4E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Fresh Tox:	100				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	3E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-01	mg/L	Non Cancer Risk:	2E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dinitrobenzene, 1,3-

CAS Number:

000099-65-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.9E+01	mg/kg	RTECS
Dermal LD50:	1.9E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.2E+03	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	7.6E+02	days	THOMAS
Photolysis:	2.3E+01	days	CHEMFATE
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	6.5E+02	days	THOMAS
Photolysis:	2.3E+01	days	CHEMFATE
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	1.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.5E+00	g/mL @ 18.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.0E-04	Torr	PHYSPROP
Henry's Law:	4.9E-08	atm-m3/mol	PHYSPROP
Water Solub:	5.3E+02	mg/L	PHYSPROP
Distrib Coef:	5.3E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.4E+00		EPI_EXP
Water Solub:	5.3E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.0E+01	°C
Boiling Point:	2.9E+02	°C
Formula:	C6H4N2O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dinitrobenzene, 1,3-

CAS Number: 000099-65-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 5.3E+02
Distrib: 5.3E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+00 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dioxane, 1,4-

CAS Number:

000123-91-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-02	mg/kg/day	IRIS
Inhal RfD:	8.5E-03	mg/kg/day	IRIS
RfC	3.0E-02	mg/m^3	IRIS
Oral Slope:	1.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	5.0E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	1.7E-02	(mg/kg/day)^-1	IRIS
Oral ED10:	2.9E+01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	2.9E+01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.0E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.4E+04	ppm	ACGIH
Dust Inhal LC50:	5.1E+01	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.8E+06	µg/L	ECOTOX
Salt Ecol LC50:	6.7E+06	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.7E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.4E+01	days	HEDR
Radio:		days	
Log Kow:	2.7E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	8.8E+01	
Density:	1.0E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.8E+01	Torr	PHYSPROP
Henry's Law:	4.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.7E-01		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.1E+01	°C
Boiling Point:	1.0E+02	°C
Formula:	C4H8O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Dioxane, 1,4-

CAS Number: 000123-91-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:			Water Solub:	1.0E+06							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	1				
						Salt Tox:	1				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	6E+00	mg/kg	MCL:		pCi/L
Cancer Risk:	4E-04	mg/m3	Cancer Risk:	6E-04	mg/L	Non Cancer Risk:	2E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	3E-02	mg/m3	Non Cancer Risk:	4E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	6E-04	mg/L	Cancer Risk:	3E-02	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	4E-01	mg/L	Non Cancer Risk:	4E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dioxin, 1,4-

CAS Number:

000290-67-5

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	8.4E+01	
Density:		g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	C4H4O2

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Dioxin, 1,4-

CAS Number:

000290-67-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Toxicity:	0				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:							
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	0.07		Lake:	0.07		Lake:	0.07				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Diphenylhydrazine, 1,2-

CAS Number:

000122-66-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	8.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	2.2E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	7.7E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	2.3E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B1		EPA_ED10
Inhal ED10:	2.3E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B1		EPA_ED10
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.3E+02	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	7.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.8E+02	
Density:	1.1E+00	g/mL @ 16.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.3E-04	Torr	PHYSPROP
Henry's Law:	4.7E-07	atm-m3/mol	PHYSPROP
Water Solub:	2.2E+02	mg/L	PHYSPROP
Distrib Coef:	2.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.9E+00		EPI_EXP
Water Solub:	2.2E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.3E+02	°C
Boiling Point:	3.0E+02	°C
Formula:	C12H12N2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Diphenylhydrazine, 1,2-

CAS Number:

000122-66-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 2.2E+02
Distrib: 2.2E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.1E-05 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 8E-05 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 8E-01 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 8E-05 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 3E-03 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Disulfoton

CAS Number:

000298-04-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-05	mg/kg/day	IRIS
Inhal RfD:	5.7E-05	mg/kg/day	ATSDR-Int
RfC	2.0E-04	mg/m^3	ATSDR-Int
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.3E+00	mg/kg	ACGIH
Dermal LD50:	3.6E+00	mg/kg	ACGIH
Gas Inhal LC50:	8.7E-01	ppm	ACGIH
Dust Inhal LC50:	9.8E+00	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.7E+00	µg/L	ECOTOX
Salt Ecol LC50:	8.0E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.0E+02	days	CHEMFATE
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.1E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.0E+02	days	CHEMFATE
Volatility:	2.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.1E+01	days	HEDR
Radio:		days	
Log Kow:	4.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.7E+02	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.7E-05	Torr	PHYSPROP
Henry's Law:	2.1E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+01	mg/L	PHYSPROP
Distrib Coef:	1.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	5.4E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.4E+03		ECOTOX
Salt BCF:			
Log Kow:	4.0E+00		EPI_EXP
Water Solub:	1.6E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.5E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C8H19O2PS3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Disulfoton

CAS Number: 000298-04-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.6E+01
Distrib: 1.2E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-04 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-04 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+00 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-04 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 5E-02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endosulfan (I or II)

CAS Number:

000115-29-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	8.4E+00	mg/kg	ACGIH
Dermal LD50:	7.8E+01	mg/kg	ACGIH
Gas Inhal LC50:	7.5E-01	ppm	ACGIH
Dust Inhal LC50:	1.2E+01	mg/L	ACGIH
ACUTE			
Fresh CMC:	2.2E-01	µg/L	NRWQC
Salt CMC:	3.4E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.6E-02	µg/L	NRWQC
Salt CCC:	8.7E-03	µg/L	NRWQC
Fresh Ecol LC50:	6.0E-03	µg/L	ECOTOX
Salt Ecol LC50:	2.0E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.5E+05	days	CHEMFATE
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.4E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.5E+05	days	CHEMFATE
Volatility:	2.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.4E+01	days	HEDR
Radio:		days	
Log Kow:	3.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:	1.7E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.7E-07	Torr	PHYSPROP
Henry's Law:	6.5E-05	atm-m3/mol	PHYSPROP
Water Solub:	3.2E-01	mg/L	PHYSPROP
Distrib Coef:	1.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.9E+00		ECOTOX
Salt BCF:	2.8E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.1E+04		ECOTOX
Salt BCF:	4.2E+03		ECOTOX
Log Kow:	3.8E+00		EPI_EXP
Water Solub:	3.2E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.0E+02	°C
Boiling Point:	1.0E+02	°C
Formula:	C9H6Cl6O3S	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Endosulfan (I or II)

CAS Number: 000115-29-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.002		Water Solub:	3.2E-01							
Gas Migration:	6		Distrib:	1.0E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	50000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	4E+02	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	9E-02	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	2.2E-01	µg/L			
Non Cancer Risk:	9E-02	mg/L	Non Cancer Risk:	8E+00	mg/kg	Salt CMC:	3.4E-02	µg/L			
						CHRONIC					
						Fresh CCC:	5.6E-02	µg/L			
						Salt CCC:	8.7E-03	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endosulfan I

CAS Number:

000959-98-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.1E+01	mg/kg	ACGIH
Dermal LD50:	7.8E+01	mg/kg	ACGIH
Gas Inhal LC50:	7.5E-01	ppm	ACGIH
Dust Inhal LC50:	1.2E+01	mg/L	ACGIH
ACUTE			
Fresh CMC:	2.2E-01	µg/L	NRWQC
Salt CMC:	3.4E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.6E-02	µg/L	NRWQC
Salt CCC:	8.7E-03	µg/L	NRWQC
Fresh Ecol LC50:	1.1E-01	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.8E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.0E-06	Torr	PHYSPROP
Henry's Law:	7.0E-06	atm-m3/mol	PHYSPROP
Water Solub:	5.1E-01	mg/L	PHYSPROP
Distrib Coef:	1.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.0E+04		ECOTOX
Salt BCF:			
Log Kow:	3.8E+00		EPI_EXP
Water Solub:	5.1E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.0E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C9H6Cl6O3S	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endosulfan I

CAS Number:

000959-98-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 5.1E-01
Distrib: 1.0E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 2.2E-01 µg/L
Salt CMC: 3.4E-02 µg/L

CHRONIC
Fresh CCC: 5.6E-02 µg/L
Salt CCC: 8.7E-03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endosulfan II

CAS Number:

033213-65-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.6E+01	mg/kg	ACGIH
Dermal LD50:	7.8E+01	mg/kg	ACGIH
Gas Inhal LC50:	7.5E-01	ppm	ACGIH
Dust Inhal LC50:	1.2E+01	mg/L	ACGIH
ACUTE			
Fresh CMC:	2.2E-01	µg/L	NRWQC
Salt CMC:	3.4E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.6E-02	µg/L	NRWQC
Salt CCC:	8.7E-03	µg/L	NRWQC
Fresh Ecol LC50:	1.0E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	3.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.0E-07	Torr	PHYSPROP
Henry's Law:	3.9E-07	atm-m3/mol	PHYSPROP
Water Solub:	4.5E-01	mg/L	PHYSPROP
Distrib Coef:	1.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	9.9E+03		ECOTOX
Salt BCF:			
Log Kow:	3.8E+00		EPI_EXP
Water Solub:	4.5E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.0E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C9H6Cl6O3S	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Endosulfan II

CAS Number: 033213-65-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 4.5E-01
Distrib: 1.0E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 2.2E-01 µg/L
Salt CMC: 3.4E-02 µg/L

CHRONIC
Fresh CCC: 5.6E-02 µg/L
Salt CCC: 8.7E-03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endrin

CAS Number:

000072-20-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.3E+00	mg/kg	ACGIH
Dermal LD50:	1.5E+01	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	8.6E-02	µg/L	NRWQC
Salt CMC:	3.7E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	3.6E-02	µg/L	NRWQC
Salt CCC:	2.3E-03	µg/L	NRWQC
Fresh Ecol LC50:	2.0E-02	µg/L	ECOTOX
Salt Ecol LC50:	2.5E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	5.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.8E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.0E-06	Torr	PHYSPROP
Henry's Law:	6.3E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.5E-01	mg/L	PHYSPROP
Distrib Coef:	3.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.2E+03		ECOTOX
Salt BCF:	2.7E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.9E+04		ECOTOX
Salt BCF:	6.4E+03		ECOTOX
Log Kow:	5.4E+00		EPI_EXP
Water Solub:	2.5E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.2E+02	°C
Boiling Point:	3.3E+02	°C
Formula:	C12H8Cl16O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endrin

CAS Number:

000072-20-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 2.5E-01
Distrib: 3.0E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 2E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 2E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 8.6E-02 µg/L
Salt CMC: 3.7E-02 µg/L

CHRONIC
Fresh CCC: 3.6E-02 µg/L
Salt CCC: 2.3E-03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Endrin aldehyde

CAS Number:

007421-93-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	4.8E+00		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.8E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E-07	Torr	PHYSPROP
Henry's Law:	4.1E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.4E-02	mg/L	PHYSPROP
Distrib Coef:	4.9E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	4.8E+00		PHYSPROP
Water Solub:	2.4E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.3E+02	°C
Boiling Point:	3.3E+02	°C
Formula:	C12H8Cl6O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Endrin aldehyde

CAS Number: 007421-93-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub: 2.4E-02
Distrib: 4.9E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-03
Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Ethyl chloride

CAS Number:

000075-00-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:	2.8E+00	mg/kg/day	IRIS
RfC	1.0E+01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	6.0E+04	ppm	ACGIH
Dust Inhal LC50:	1.6E+02	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E-01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.7E-01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	6.4E+01	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E+03	Torr	PHYSPROP
Henry's Law:	1.1E-02	atm-m3/mol	PHYSPROP
Water Solub:	6.7E+03	mg/L	PHYSPROP
Distrib Coef:	3.3E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.4E+00		EPI_EXP
Water Solub:	6.7E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.3E+02	°C
Boiling Point:	1.2E+01	°C
Formula:	C2H5Cl	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Ethyl chloride

CAS Number:

000075-00-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub: 6.7E+03
Distrib: 3.3E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

Persistence
River: 0.0007
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E+01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Ethylbenzene

CAS Number:

000100-41-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-01	mg/kg/day	IRIS
RfC	1.0E+00	mg/m^3	IRIS
Oral Slope:	1.1E-02	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	C		CALEPA
IUR:	2.5E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	C		CALEPA
Inhal Slope:	8.7E-03	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.2E+03	µg/L	ECOTOX
Salt Ecol LC50:	2.1E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.0E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.0E+01	days	CHEMFATE
Radio:		days	
Log Kow:	3.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	8.6E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.6E+00	Torr	PHYSPROP
Henry's Law:	7.8E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+02	mg/L	PHYSPROP
Distrib Coef:	6.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+00		EPI_EXP
Water Solub:	1.6E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.4E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C8H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Ethylene glycol monobutyl ether (EBGE)

CAS Number:

000111-76-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	IRIS
Inhal RfD:	4.5E-01	mg/kg/day	IRIS
RfC	1.6E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.5E+02	mg/kg	RTECS
Dermal LD50:	2.2E+02	mg/kg	RTECS
Gas Inhal LC50:	4.5E+02	ppm	RTECS
Dust Inhal LC50:	2.1E+00	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.3E+06	µg/L	ECOTOX
Salt Ecol LC50:	5.5E+05	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	8.3E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.8E-01	Torr	PHYSPROP
Henry's Law:	1.6E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:	4.2E-01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	8.3E-01		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-7.4E+01	°C
Boiling Point:	1.6E+02	°C
Formula:	C6H14O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Ethylene glycol monobutyl ether (EBGE)

CAS Number: 000111-76-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:			Water Solub:	1.0E+06							
Gas Migration:			Distrib:	4.2E-01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Fresh Tox:	1				
						Salt Tox:	1				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	5				
			Salt:	5		Salt:	5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	1.6E+00	mg/m3	Non Cancer Risk:	1E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+00	mg/L	Non Cancer Risk:	1E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Fluorene

CAS Number:

000086-73-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.7E+02	µg/L	ECOTOX
Salt Ecol LC50:	7.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.1E+03	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.1E+03	days	CHEMFATE
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.2E+00	g/mL @ 0.000 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.0E-04	Torr	PHYSPROP
Henry's Law:	9.6E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+00	mg/L	PHYSPROP
Distrib Coef:	1.3E+03	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.3E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.2E+03		ECOTOX
Salt BCF:			
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	1.6E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.1E+02	°C
Boiling Point:	2.9E+02	°C
Formula:	C13H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Fluorene

CAS Number:

000086-73-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.02
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.6E+00
Distrib: 1.3E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-04
Non Liq Karst: 2.0E-01
Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 6E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 5E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Fluorine

CAS Number:

007782-41-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-02	mg/kg/day	IRIS
Inhal RfD:	3.7E-03	mg/kg/day	CALEPA
RfC	1.3E-02	mg/m^3	CALEPA
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.5E+02	ppm	ACGIH
Dust Inhal LC50:	2.3E-01	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.2E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.8E+01	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E+08	Torr	PHYSPROP
Henry's Law:	8.2E-02	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+00	mg/L	PHYSPROP
Distrib Coef:	1.5E+02	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.2E-01		PHYSPROP
Water Solub:	1.6E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.1E+02	°C
Boiling Point:	-1.8E+02	°C
Formula:	F2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Fluorine

CAS Number: 007782-41-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 1.6E+00
Distrib: 1.5E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 0.4
Lake: 0.07

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 0.07

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1.3E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Furfural

CAS Number:

000098-01-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:	1.4E-02	mg/kg/day	HEAST
RfC	5.0E-02	mg/m^3	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	4.0E+02	mg/kg	RTECS
Dermal LD50:	1.1E+02	mg/kg	RTECS
Gas Inhal LC50:	1.7E+02	ppm	RTECS
Dust Inhal LC50:	6.8E-01	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	9.1E+03	µg/L	ECOTOX
Salt Ecol LC50:	7.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.3E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	4.1E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.6E+01	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.2E+00	Torr	PHYSPROP
Henry's Law:	3.3E-06	atm-m3/mol	PHYSPROP
Water Solub:	7.7E+04	mg/L	PHYSPROP
Distrib Coef:	9.2E-01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	4.1E-01		EPI_EXP
Water Solub:	7.7E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.6E+01	°C
Boiling Point:	1.6E+02	°C
Formula:	C5H4O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Furfural

CAS Number: 000098-01-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 7.7E+04
Distrib: 9.2E-01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 5E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlor

CAS Number:

000076-44-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	4.5E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.3E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	4.5E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	8.5E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	8.5E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	4.0E+01	mg/kg	ACGIH
Dermal LD50:	1.1E+02	mg/kg	ACGIH
Gas Inhal LC50:	9.8E+00	ppm	ACGIH
Dust Inhal LC50:	1.5E+02	mg/L	ACGIH
ACUTE			
Fresh CMC:	5.2E-01	µg/L	NRWQC
Salt CMC:	5.3E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	3.8E-03	µg/L	NRWQC
Salt CCC:	3.6E-03	µg/L	NRWQC
Fresh Ecol LC50:	3.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	2.0E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	5.3E+00	days	HEDR
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:	6.5E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	5.3E+00	days	HEDR
Volatility:	1.9E+00	days	THOMAS
Photolysis:		days	
Biodeg:	6.5E+01	days	HEDR
Radio:		days	
Log Kow:	6.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.7E+02	
Density:	1.5E+00	g/mL @ 9.00 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.0E-04	Torr	PHYSPROP
Henry's Law:	2.9E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.8E-01	mg/L	PHYSPROP
Distrib Coef:	6.2E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.1E+02		ECOTOX
Salt BCF:	1.7E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.3E+04		ECOTOX
Salt BCF:	3.7E+04		ECOTOX
Log Kow:	6.1E+00		EPI_EXP
Water Solub:	1.8E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.5E+01	°C
Boiling Point:	3.1E+02	°C
Formula:	C10H5Cl7	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlor

CAS Number:

000076-44-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	0.02		Water Solub:	1.8E-01							
Gas Migration:	11		Distrib:	6.2E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	4E-04	mg/L	Cancer Risk:	1.4E-01	mg/kg	MCL:		pCi/L
Cancer Risk:	1.8E-06	mg/m3	Cancer Risk:	1.4E-05	mg/L	Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	7E-03	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	4E-04	mg/L	FDAAL:	1E-02	ppm	ACUTE					
Cancer Risk:	1.4E-05	mg/L	Cancer Risk:	7.0E-04	mg/kg	Fresh CMC:	5.2E-01	µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:	5.3E-02	µg/L			
						CHRONIC					
						Fresh CCC:	3.8E-03	µg/L			
						Salt CCC:	3.6E-03	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlor epoxide

CAS Number:

001024-57-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.3E-05	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	9.1E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	2.6E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	9.1E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	3.4E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	3.4E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	6.2E+01	mg/kg	ACGIH
Dermal LD50:	1.0E+01	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	5.2E-01	µg/L	NRWQC
Salt CMC:	5.3E-02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	3.8E-03	µg/L	NRWQC
Salt CCC:	3.6E-03	µg/L	NRWQC
Fresh Ecol LC50:	3.9E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.0E-03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:	5.2E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	5.2E+02	days	HEDR
Radio:		days	
Log Kow:	4.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.8E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.9E-05	Torr	PHYSPROP
Henry's Law:	2.1E-05	atm-m3/mol	PHYSPROP
Water Solub:	2.0E-01	mg/L	PHYSPROP
Distrib Coef:	1.5E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.3E+03		ECOTOX
Salt BCF:	1.7E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.4E+04		ECOTOX
Salt BCF:	1.7E+03		ECOTOX
Log Kow:	4.9E+00		EPI_EXP
Water Solub:	2.0E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.6E+02	°C
Boiling Point:	3.4E+02	°C
Formula:	C10H5Cl7O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlorodibenzo-p-dioxin

CAS Number:

037871-00-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.2E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.6E-10	Torr	PHYSPROP
Henry's Law:	2.1E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.4E-06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	8.0E+00		EPI_EXP
Water Solub:	1.4E-06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.6E+02	°C
Boiling Point:	4.3E+02	°C
Formula:	C12HCl7O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Heptachlorodibenzo-p-dioxin

CAS Number: 037871-00-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub: 1.4E-06
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-

CAS Number:

035822-46-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-12	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E-01	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	6.3E+00	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.2E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.5E-10	Torr	PHYSPROP
Henry's Law:	1.7E-04	atm-m3/mol	PHYSPROP
Water Solub:	2.4E-06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.1E+04		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.1E+04		ECOTOX
Salt BCF:			
Log Kow:	8.2E+00		EPI_EXP
Water Solub:	2.4E-06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.6E+02	°C
Boiling Point:	4.3E+02	°C
Formula:	C12HCl7O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-

CAS Number: 035822-46-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 2.4E-06
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.4E-09 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 5.1E-08 mg/L
Non Cancer Risk: 1E-10 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-04 mg/kg
Non Cancer Risk: 5E-07 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 5.1E-08 mg/L
Non Cancer Risk: 1E-10 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 2.4E-06 mg/kg
Non Cancer Risk: 9E-09 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlorodibenzofuran, 1,2,3,4,6,7,8-

CAS Number:

067562-39-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-12	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E-01	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E-11	Torr	PHYSPROP
Henry's Law:	1.4E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.3E-06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+00		EPI_EXP
Water Solub:	1.3E-06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.3E+02	°C
Boiling Point:	4.3E+02	°C
Formula:	C12HCl7O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Heptachlorodibenzofuran, 1,2,3,4,6,7,8-

CAS Number: 067562-39-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.0002		Water Solub:	1.3E-06							
Gas Migration:	6		Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.9E-04	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-09	mg/m3	Cancer Risk:	5.1E-08	mg/L	Non Cancer Risk:	5E-07	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-10	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-08	mg/L	Cancer Risk:	2.4E-06	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-10	mg/L	Non Cancer Risk:	9E-09	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Heptachlorodibenzofuran, 1,2,3,4,7,8,9-

CAS Number:

055673-89-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-12	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E-01	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E-11	Torr	EPI_EXP
Henry's Law:	1.4E-05	atm-m3/mol	EPI_EXP
Water Solub:	1.3E-06	mg/L	EPI_EXP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+00		EPI_EXP
Water Solub:	1.3E-06		EPI_EXP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.3E+02	°C
Boiling Point:	4.3E+02	°C
Formula:	C12H1CL7O1	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Heptachlorodibenzofuran, 1,2,3,4,7,8,9-

CAS Number: 055673-89-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	1.3E-06							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.9E-04	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-09	mg/m3	Cancer Risk:	5.1E-08	mg/L	Non Cancer Risk:	5E-07	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-10	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-08	mg/L	Cancer Risk:	2.4E-06	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-10	mg/L	Non Cancer Risk:	9E-09	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexabromobiphenyl (PBB)

CAS Number:

036355-01-8

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.1E+04	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.3E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	6.2E+02	
Density:		g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:	5.2E-08	Torr	PHYSPROP
Henry's Law:	4.2E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.1E-02	mg/L	PHYSPROP
Distrib Coef:	1.4E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.8E+04		ECOTOX
Salt BCF:			
Log Kow:	6.3E+00		EPI_EXP
Water Solub:	1.1E-02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	7.2E+01	°C
Boiling Point:	4.6E+02	°C
Formula:	C12H4Br6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexabromobiphenyl (PBB)

CAS Number: 036355-01-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility: 0.0002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub: 1.1E-02
Distrib: 1.4E+04
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorobenzene

CAS Number:

000118-74-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.6E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	4.6E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.6E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	2.5E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	2.5E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.6E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.5E+02	ppm	RTECS
Dust Inhal LC50:	1.8E+03	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	3.3E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.0E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.0E+03	days	HEDR
Radio:		days	
Log Kow:	5.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.8E+02	
Density:	2.0E+00	g/mL @ 23.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.8E-05	Torr	PHYSPROP
Henry's Law:	1.7E-03	atm-m3/mol	PHYSPROP
Water Solub:	6.2E-03	mg/L	PHYSPROP
Distrib Coef:	9.4E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.5E+06		ECOTOX
Salt BCF:	5.1E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.9E+06		ECOTOX
Salt BCF:	5.1E+05		ECOTOX
Log Kow:	5.7E+00		EPI_EXP
Water Solub:	6.2E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.3E+02	°C
Boiling Point:	3.2E+02	°C
Formula:	C6Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorobenzene

CAS Number: 000118-74-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	0.02		Water Solub:	6.2E-03							
Gas Migration:	11		Distrib:	9.4E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1E-03	mg/L	Cancer Risk:	4.0E-01	mg/kg	MCL:		pCi/L
Cancer Risk:	5.2E-06	mg/m3	Cancer Risk:	4.2E-05	mg/L	Non Cancer Risk:	6E+01	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-02	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1E-03	mg/L	FDAAL:	5E-02	ppm	ACUTE					
Cancer Risk:	4.2E-05	mg/L	Cancer Risk:	1.9E-03	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-02	mg/L	Non Cancer Risk:	1E+00	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorobutadiene

CAS Number:

000087-68-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-03	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.8E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		IRIS
IUR:	2.2E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:	7.7E-02	(mg/kg/day)^-1	IRIS
Oral ED10:	1.6E+00	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	C		EPA_ED10
Inhal ED10:	1.6E+00	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	C		EPA_ED10
Oral LD50:	8.7E+01	mg/kg	ACGIH
Dermal LD50:	1.2E+02	mg/kg	RTECS
Gas Inhal LC50:	3.4E+01	ppm	RTECS
Dust Inhal LC50:	3.7E+02	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.7E+00	µg/L	ECOTOX
Salt Ecol LC50:	2.6E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	4.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+02	
Density:	1.5E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.2E-01	Torr	PHYSPROP
Henry's Law:	1.0E-02	atm-m3/mol	PHYSPROP
Water Solub:	3.2E+00	mg/L	PHYSPROP
Distrib Coef:	1.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.1E+04		ECOTOX
Salt BCF:	1.0E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.1E+04		ECOTOX
Salt BCF:	1.0E+04		ECOTOX
Log Kow:	4.7E+00		EPI_EXP
Water Solub:	3.2E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.1E+01	°C
Boiling Point:	2.1E+02	°C
Formula:	C4Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorobutadiene

CAS Number: 000087-68-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 3.2E+00
Distrib: 1.2E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.1E-04 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 8.6E-04 mg/L
Non Cancer Risk: 1E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 8.2E+00 mg/kg
Non Cancer Risk: 7E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 8.6E-04 mg/L
Non Cancer Risk: 1E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 4.0E-02 mg/kg
Non Cancer Risk: 1E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorocyclohexane, alpha-

CAS Number:

000319-84-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-03	mg/kg/day	ATSDR
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	6.3E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.8E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	6.3E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	1.9E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.9E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	7.8E+01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.2E+02	µg/L	ECOTOX
Salt Ecol LC50:	4.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.0E+02	days	HEDR
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.0E+02	days	HEDR
Volatility:	5.0E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+02	days	HEDR
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.5E-05	Torr	PHYSPROP
Henry's Law:	1.2E-05	atm-m3/mol	PHYSPROP
Water Solub:	2.0E+00	mg/L	PHYSPROP
Distrib Coef:	4.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+03		ECOTOX
Salt BCF:	2.4E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.8E+03		ECOTOX
Salt BCF:	2.4E+05		ECOTOX
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	2.0E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.5E+02	°C
Boiling Point:	2.8E+02	°C
Formula:	C6H6Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorocyclohexane, alpha-

CAS Number:

000319-84-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.02
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 2.0E+00
Distrib: 4.2E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 1.3E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.0E-05 mg/L
Non Cancer Risk: 1E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.0E-01 mg/kg
Non Cancer Risk: 6E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.0E-05 mg/L
Non Cancer Risk: 1E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 5.0E-04 mg/kg
Non Cancer Risk: 1E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorocyclohexane, beta-

CAS Number:

000319-85-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-04	mg/kg/day	ATSDR
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.8E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		IRIS
IUR:	5.3E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:	1.8E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	9.3E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:			EPA_ED10
Inhal ED10:	9.3E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	C		EPA_ED10
Oral LD50:	6.0E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	7.7E+02	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.0E+02	days	HEDR
Volatility:	2.4E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.0E+02	days	HEDR
Volatility:	9.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+02	days	HEDR
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.9E+02	
Density:	1.8E+00	g/mL @ 19.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.6E-07	Torr	PHYSPROP
Henry's Law:	4.4E-07	atm-m3/mol	PHYSPROP
Water Solub:	2.4E-01	mg/L	PHYSPROP
Distrib Coef:	4.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.9E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.5E+03		ECOTOX
Salt BCF:			
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	2.4E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.1E+02	°C
Boiling Point:	6.0E+01	°C
Formula:	C6H6Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorocyclohexane, beta-

CAS Number: 000319-85-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 2.4E-01
Distrib: 4.2E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-03
Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 4.5E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 3.7E-05 mg/L
Non Cancer Risk: 9E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 3.5E-01 mg/kg
Non Cancer Risk: 4E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 3.7E-05 mg/L
Non Cancer Risk: 9E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1.7E-03 mg/kg
Non Cancer Risk: 8E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,4,7,8-

CAS Number:

039227-28-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	7.2E-02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.8E-11	Torr	PHYSPROP
Henry's Law:	3.9E-06	atm-m3/mol	PHYSPROP
Water Solub:	4.4E-06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.8E+03		ECOTOX
Salt BCF:			
Log Kow:	7.8E+00		EPI_EXP
Water Solub:	4.4E-06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.7E+02	°C
Boiling Point:	4.1E+02	°C
Formula:	C12H2Cl6O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,4,7,8-

CAS Number: 039227-28-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 4.4E-06
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.4E-10 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-05 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 2.4E-07 ppm
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-

CAS Number:

057653-85-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	6.2E+03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.3E+00	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	4.5E+03	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	7.0E-02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.6E-11	Torr	PHYSPROP
Henry's Law:	1.9E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.6E-05	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	8.2E+00		EPI_EXP
Water Solub:	2.6E-05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.8E+02	°C
Boiling Point:	4.1E+02	°C
Formula:	C12H2Cl6O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-

CAS Number: 057653-85-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	2.6E-05							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.0E-04	mg/kg	MCL:		pCi/L
Cancer Risk:	1.8E-09	mg/m3	Cancer Risk:	1.0E-08	mg/L	Non Cancer Risk:	5E-06	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-09	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.0E-08	mg/L	Cancer Risk:	5.0E-07	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-09	mg/L	Non Cancer Risk:	9E-08	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-

CAS Number:

019408-74-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	6.2E+03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.3E+00	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	4.5E+03	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	6.0E-02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.8E-11	Torr	PHYSPROP
Henry's Law:	1.9E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.6E-05	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	8.2E+00		EPI_EXP
Water Solub:	2.6E-05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.4E+02	°C
Boiling Point:	4.1E+02	°C
Formula:	C12H2Cl6O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-

CAS Number:

019408-74-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	2.6E-05							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.0E-04	mg/kg	MCL:		pCi/L
Cancer Risk:	1.8E-09	mg/m3	Cancer Risk:	1.0E-08	mg/L	Non Cancer Risk:	5E-06	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-09	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.0E-08	mg/L	Cancer Risk:	5.0E-07	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-09	mg/L	Non Cancer Risk:	9E-08	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,4,7,8-

CAS Number:

070648-26-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+01	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:	5.8E-05	mg/L	EPI_EXP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+00		EPI_EXP
Water Solub:	5.8E-05		EPI_EXP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	4.1E+02 °C
Formula:	C12H2CL6O1

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,4,7,8-

CAS Number: 070648-26-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 5.8E-05
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.4E-10 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-05 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 2.4E-07 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,6,7,8-

CAS Number:

057117-44-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+01	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-07	Torr	EPI_EXP
Henry's Law:		atm-m3/mol	
Water Solub:	5.8E-05	mg/L	EPI_EXP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+00		EPI_EXP
Water Solub:	5.8E-05		EPI_EXP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	4.1E+02 °C
Formula:	C12H2CL6O1

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,6,7,8-

CAS Number: 057117-44-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	5.8E-05							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.9E-05	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-10	mg/m3	Cancer Risk:	5.1E-09	mg/L	Non Cancer Risk:	5E-06	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-09	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-09	mg/L	Cancer Risk:	2.4E-07	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-09	mg/L	Non Cancer Risk:	9E-08	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,7,8,9-

CAS Number:

072918-21-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	6.8E+01	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.6E+00	days	EPI_EST
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.7E-08	Torr	EPI_EXP
Henry's Law:		atm-m3/mol	
Water Solub:	1.1E-04	mg/L	EPI_EXP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.5E+00		EPI_EXP
Water Solub:	1.1E-04		EPI_EXP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	4.2E+02 °C
Formula:	C12H2CL6O1

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzofuran, 1,2,3,7,8,9-

CAS Number:

072918-21-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.1E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.4E-10 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-05 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 5.1E-09 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 2.4E-07 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hexachlorodibenzofuran, 2,3,4,6,7,8-

CAS Number:

060851-34-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.2E-01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	8.8E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-07	Torr	PHYSPROP
Henry's Law:	6.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	5.8E-05	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+00		EPI_EXP
Water Solub:	5.8E-05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.3E+02	°C
Boiling Point:	4.1E+02	°C
Formula:	C12H2Cl6O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Hexachlorodibenzofuran, 2,3,4,6,7,8-

CAS Number: 060851-34-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	5.8E-05							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.9E-05	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-10	mg/m3	Cancer Risk:	5.1E-09	mg/L	Non Cancer Risk:	5E-06	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-09	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-09	mg/L	Cancer Risk:	2.4E-07	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-09	mg/L	Non Cancer Risk:	9E-08	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hydrazine

CAS Number:

000302-01-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:	8.5E-06	mg/kg/day	PPRTV
RfC	3.0E-05	mg/m^3	PPRTV
Oral Slope:	3.0E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	4.9E-03	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.7E+01	(mg/kg/day)^-1	IRIS
Oral ED10:	9.3E-03	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	9.3E-03	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	6.0E+01	mg/kg	ACGIH
Dermal LD50:	9.3E+01	mg/kg	ACGIH
Gas Inhal LC50:	5.7E+02	ppm	ACGIH
Dust Inhal LC50:	7.4E-01	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	5.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	5.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	-2.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+01	
Density:	1.0E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.4E+01	Torr	PHYSPROP
Henry's Law:	6.0E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:	2.0E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-2.0E+00		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.0E+00	°C
Boiling Point:	1.1E+02	°C
Formula:	H4N2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hydrogen sulfide

CAS Number:

007783-06-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-02	mg/kg/day	HEAST
Inhal RfD:	5.7E-04	mg/kg/day	IRIS
RfC	2.0E-03	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.5E+01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	3.3E+02	ppm	RTECS
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:	2.0E+00	µg/L	NRWQC
Salt CCC:	2.0E+00	µg/L	NRWQC
Fresh Ecol LC50:	2.0E+00	µg/L	ECOTOX
Salt Ecol LC50:	3.1E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.4E+01	
Density:	1.3E-03	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.5E+04	Torr	PHYSPROP
Henry's Law:	8.5E-03	atm-m3/mol	PHYSPROP
Water Solub:	3.7E+03	mg/L	PHYSPROP
Distrib Coef:	9.9E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.3E-01		PHYSPROP
Water Solub:	3.7E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.5E+01	°C
Boiling Point:	-5.9E+01	°C
Formula:	H2 S	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Hydrogen sulfide

CAS Number:

007783-06-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	1		Water Solub:	3.7E+03							
Gas Migration:	17		Distrib:	9.9E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	0.07		Lake:	0.07		Lake:	0.07				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	2E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	2E-03	mg/m3	Non Cancer Risk:	4E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	4E-01	mg/L	Non Cancer Risk:	4E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:	2.0E+00	µg/L			
						Salt CCC:	2.0E+00	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Indeno(1,2,3-cd)pyrene

CAS Number:

000193-39-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.3E-01	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-04	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E-01	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+02	days	THOMAS
Photolysis:	2.5E+02	days	HEDR
Biodeg:	7.3E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:	2.5E+02	days	HEDR
Biodeg:	7.3E+02	days	HEDR
Radio:		days	
Log Kow:	6.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.7E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E-10	Torr	PHYSPROP
Henry's Law:	3.4E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.9E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	6.7E+00		EPI_EXP
Water Solub:	1.9E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.6E+02	°C
Boiling Point:	5.3E+02	°C
Formula:	C22H12	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Indeno(1,2,3-cd)pyrene

CAS Number: 000193-39-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 1.9E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 8.7E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 2.9E-05 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.0E-01 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 2.9E-05 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 4.3E-03 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Iron

CAS Number:

007439-89-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-01	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	4.0E+02	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:	1.0E+03	µg/L	NRWQC
Salt CCC:	1.0E+03	µg/L	NRWQC
Fresh Ecol LC50:	5.6E+02	µg/L	ECOTOX
Salt Ecol LC50:	4.9E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-7.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.5E+01	
Density:	7.8E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	2.5E+01	ml/g	BAES
Geo Mean Sol:	3.5E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	1.2E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.8E+07		ECOTOX
Salt BCF:	1.2E+03		ECOTOX
Log Kow:	-7.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	3.5E+05	mg/L	CRC

OTHER DATA

Melting Point:	1.5E+03	°C
Boiling Point:	2.8E+03	°C
Formula:	Fe	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Iron

CAS Number: 007439-89-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub:
Distrib: 2.5E+01
Geo Mean Sol: 3.5E+05
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10
Salt Tox: 10

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 5E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 9E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: 1.0E+03 µg/L
Salt CCC: 1.0E+03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Iron 55 (radionuclide)

CAS Number:

014681-59-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
RfC		mg/m^3		Gas:	No		
Oral Slope:	Food: 1.1E-12	(pCi)^-1	OSRTI_PRG	Particulate:	Yes		
	Soil: 2.0E-12	(pCi)^-1	OSRTI_PRG	Radionuclide:	Yes		
	Water: 8.6E-13	(pCi)^-1	OSRTI_PRG	Rad. Element:	No		
Oral Wt-of-Evid:	A		HRS	Molecular Weight:	5.5E+01		
IUR:		(µg/m3)^-1		Density:	7.8E+00	g/mL @	25.0 °C
IUR Wt-of-Evid:	A		HRS	MOBILITY			
Inhal Slope:	7.9E-13	(pCi)^-1	OSRTI_PRG	Parameter	Value	Unit	Source
Extern. Exp Slope:	0.00E+00	(yr)^-1/pCi[(g)^-1]		Vapor Press:	4.2E-09	Torr	PHYSPROP
Lambda:	2.5E-01		OSRTI_PRG	Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Area Correct.:	0.00E+00	m^2	OSRTI_PRG	Water Solub:		mg/L	
Oral ED10:		mg/kg/day		Distrib Coef:	2.5E+01	ml/g	BAES
Oral ED10 Wgt:				Geo Mean Sol:	3.5E+05	mg/L	CRC
Inhal ED10:		mg/kg/day		BIOACCUMULATION			
Inhal ED10 Wgt:				Parameter	Value	Unit	Source
Oral LD50:		mg/kg		FOOD CHAIN			
Dermal LD50:		mg/kg		Fresh BCF:	1.2E+03		ECOTOX
Gas Inhal LC50:		ppm		Salt BCF:	1.2E+03		ECOTOX
Dust Inhal LC50:		mg/L		ENVIRONMENTAL			
ACUTE				Fresh BCF:	2.8E+07		ECOTOX
Fresh CMC:		µg/L		Salt BCF:	1.2E+03		ECOTOX
Salt CMC:		µg/L		Log Kow:			
CHRONIC				Water Solub:			PHYSPROP
Fresh CCC:		µg/L		Geo Mean Sol:	3.5E+05	mg/L	CRC
Salt CCC:		µg/L		OTHER DATA			
Fresh Ecol LC50:		µg/L		Melting Point:	1.5E+03	°C	
Salt Ecol LC50:		µg/L		Boiling Point:	2.8E+03	°C	
PERSISTENCE				Formula:	Fe-55		
Parameter	Value	Unit	Source				
LAKE- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	9.8E+02	days	HEAST				
RIVER- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	9.8E+02	days	HEAST				
Log Kow:	-7.7E-01		PHYSPROP				

CLASS INFORMATION

Parent Substance

Iron

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Iron 55 (radionuclide)

CAS Number: 014681-59-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	2.5E+01							
			Geo Mean Sol:	3.5E+05							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E+03	mg/L	Cancer Risk:		mg/kg	MCL:	2E+03	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	6.62E+00	pCi/m3
									DW:	6.13E+01	pCi/L
									FC:	1.52E+03	pCi/kg
									Soil Ing:	2.92E+06	pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E+03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Lead

CAS Number:

007439-92-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	6.5E+01	µg/L	NRWQC
Salt CMC:	2.1E+02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	2.5E+00	µg/L	NRWQC
Salt CCC:	8.1E+00	µg/L	NRWQC
Fresh Ecol LC50:	4.4E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.0E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	9.0E+02	ml/g	BAES
Geo Mean Sol:	1.0E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.5E+03		ECOTOX
Salt BCF:	5.0E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.3E+05		ECOTOX
Salt BCF:	5.0E+03		ECOTOX
Log Kow:	7.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.0E+04	mg/L	CRC

OTHER DATA

Melting Point:	3.2E+02	°C
Boiling Point:	1.7E+03	°C
Formula:	Pb	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Lead

CAS Number: 007439-92-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	9.0E+02							
			Geo Mean Sol:	1.0E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/	1.5E-02	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.5E-02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	6.5E+01	µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:	2.1E+02	µg/L			
						CHRONIC					
						Fresh CCC:	2.5E+00	µg/L			
						Salt CCC:	8.1E+00	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Lead 210(+D) (radionuclide)

CAS Number:

014255-04-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.4E-09	(pCi)^-1	HEAST
	Soil: 2.6E-09	(pCi)^-1	HEAST
	Water: 1.2E-09	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.3E-08	(pCi)^-1	HEAST
Extern. Exp Slope:	4.2E-09	(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.1E+03	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.1E+03	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Pb-210 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Lead 210(+D) (radionuclide)

CAS Number: 014255-04-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst:
Non Karst:

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: 3.80E-04 pCi/m3
DW: 4.16E-02 pCi/L
FC: 5.12E-01 pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Lead chromate

CAS Number:

007758-97-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+02	
Density:	6.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:	1.7E-01	mg/L	CRC
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:	1.7E-01		CRC
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.4E+02	°C
Boiling Point:		°C
Formula:	PbCrO4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Lead chromate

CAS Number:

007758-97-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.7E-01
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg

CANCER RISK

Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Lindane (Hexachlorocyclohexane, gamma-)

CAS Number:

000058-89-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.1E+00	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	NC		CALEPA
IUR:	3.1E-04	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	NC		CALEPA
Inhal Slope:	1.0E+00	(mg/kg/day)^-1	CALEPA
Oral ED10:	1.3E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.3E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	8.8E+01	mg/kg	ACGIH
Dermal LD50:	3.0E+02	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	9.5E-01	µg/L	NRWQC
Salt CMC:	1.6E-01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.6E-01	µg/L	NRWQC
Salt CCC:		µg/L	
Fresh Ecol LC50:	7.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	1.3E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.0E+02	days	CHEMFATE
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:	4.1E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.0E+02	days	CHEMFATE
Volatility:	9.7E+00	days	THOMAS
Photolysis:		days	
Biodeg:	4.1E+02	days	HEDR
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.9E+02	
Density:	1.8E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-05	Torr	PHYSPROP
Henry's Law:	5.1E-06	atm-m3/mol	PHYSPROP
Water Solub:	7.3E+00	mg/L	PHYSPROP
Distrib Coef:	4.2E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.9E+05		ECOTOX
Salt BCF:	1.2E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.9E+05		ECOTOX
Salt BCF:	1.2E+03		ECOTOX
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	7.3E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.1E+02	°C
Boiling Point:	3.2E+02	°C
Formula:	C6H6Cl6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Manganese

CAS Number:

007439-96-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.4E-01	mg/kg/day	IRIS
Inhal RfD:	1.4E-05	mg/kg/day	IRIS
RfC	5.0E-05	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.6E+01	mg/kg	ACGIH
Dermal LD50:	5.0E+01	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.8E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.4E+01	
Density:	7.3E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.5E+01	ml/g	BAES
Geo Mean Sol:	6.6E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.2E+02		ECOTOX
Salt BCF:	2.5E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	8.4E+05		ECOTOX
Salt BCF:	2.5E+04		ECOTOX
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	6.6E+04	mg/L	CRC

OTHER DATA

Melting Point:	1.2E+03	°C
Boiling Point:	2.0E+03	°C
Formula:	Mn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Manganese

CAS Number: 007439-96-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.5E+01							
			Geo Mean Sol:	6.6E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1.0E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	5E-05	mg/m3	Non Cancer Risk:	2.1E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	2.1E+00	mg/L	Non Cancer Risk:	1.8E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Manganese 54 (radionuclide)

CAS Number:

013966-31-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
RfC		mg/m^3		Gas:	No		
Oral Slope:	Food: 3.1E-12	(pCi)^-1	OSRTI_PRG	Particulate:	Yes		
	Soil: 5.1E-12	(pCi)^-1	OSRTI_PRG	Radionuclide:	Yes		
	Water: 2.2E-12	(pCi)^-1	OSRTI_PRG	Rad. Element:	No		
Oral Wt-of-Evid:	A		HRS	Molecular Weight:	5.4E+01		
IUR:		(µg/m3)^-1		Density:	7.3E+00	g/mL @	25.0 °C
IUR Wt-of-Evid:	A		HRS	MOBILITY			
Inhal Slope:	5.8E-12	(pCi)^-1	OSRTI_PRG	Parameter	Value	Unit	Source
Extern. Exp Slope:	3.8E-06	(yr)^-1/pCi[(g)^-1]		Vapor Press:	4.2E-09	Torr	PHYSPROP
Lambda:	8.0E-01		OSRTI_PRG	Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Area Correct.:	8.5E-01	m^2	OSRTI_PRG	Water Solub:		mg/L	
Oral ED10:		mg/kg/day		Distrib Coef:	6.5E+01	ml/g	BAES
Oral ED10 Wgt:				Geo Mean Sol:	6.6E+04	mg/L	CRC
Inhal ED10:		mg/kg/day		BIOACCUMULATION			
Inhal ED10 Wgt:				Parameter	Value	Unit	Source
Oral LD50:		mg/kg		FOOD CHAIN			
Dermal LD50:		mg/kg		Fresh BCF:	2.2E+02		ECOTOX
Gas Inhal LC50:		ppm		Salt BCF:	2.5E+04		ECOTOX
Dust Inhal LC50:		mg/L		ENVIRONMENTAL			
ACUTE				Fresh BCF:	8.4E+04		ECOTOX
Fresh CMC:		µg/L		Salt BCF:	2.5E+04		ECOTOX
Salt CMC:		µg/L		Log Kow:			
CHRONIC				Water Solub:			PHYSPROP
Fresh CCC:		µg/L		Geo Mean Sol:	6.6E+04	mg/L	CRC
Salt CCC:		µg/L		OTHER DATA			
Fresh Ecol LC50:		µg/L		Melting Point:	1.2E+03	°C	
Salt Ecol LC50:		µg/L		Boiling Point:	2.0E+03	°C	
PERSISTENCE				Formula:	Mn-54		
Parameter	Value	Unit	Source				
LAKE- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	3.1E+02	days	HEAST				
RIVER- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	3.1E+02	days	HEAST				
Log Kow:	2.3E-01		PHYSPROP				

CLASS INFORMATION

Parent Substance

Manganese

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Manganese 54 (radionuclide)

CAS Number: 013966-31-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.5E+01							
			Geo Mean Sol:	6.6E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	3E+02	mg/L	Cancer Risk:		mg/kg	MCL:	3E+02	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	8.99E-01	pCi/m3
									DW:	2.32E+01	pCi/L
									FC:	5.67E+02	pCi/kg
									Soil Ing:	3.74E+06	pCi/kg
									Soil Gam:	7.29E+02	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	3E+02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Mecoprop

CAS Number:

000093-65-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	6.5E+02	mg/kg	RTECS
Dermal LD50:	9.0E+02	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+04	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.1E+03	days	THOMAS
Photolysis:		days	
Biodeg:	9.9E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+03	days	THOMAS
Photolysis:		days	
Biodeg:	9.9E+00	days	HEDR
Radio:		days	
Log Kow:	3.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.5E-07	Torr	PHYSPROP
Henry's Law:	1.8E-08	atm-m3/mol	PHYSPROP
Water Solub:	6.2E+02	mg/L	PHYSPROP
Distrib Coef:	7.3E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.2E+00		EPI_EXP
Water Solub:	6.2E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.4E+01	°C
Boiling Point:	2.9E+02	°C
Formula:	C10H11ClO3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Mecoprop

CAS Number:

000093-65-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.002
Gas Migration: 0

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 6.2E+02
Distrib: 7.3E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Mercury (elemental)

CAS Number:

007439-97-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:	8.5E-05	mg/kg/day	IRIS
RfC	3.0E-04	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	1.4E+00	µg/L	NRWQC
Salt CMC:	1.8E+00	µg/L	NRWQC
CHRONIC			
Fresh CCC:	7.7E-01	µg/L	NRWQC
Salt CCC:	9.4E-01	µg/L	NRWQC
Fresh Ecol LC50:	4.7E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.2E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:	1.3E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.9E-03	Torr	PHYSPROP
Henry's Law:	8.6E-03	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	5.2E+01	ml/g	SSG
Geo Mean Sol:	4.8E+03	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	1.7E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.7E+04		ECOTOX
Salt BCF:	7.0E+05		ECOTOX
Log Kow:	6.2E-01		EPI_EXP
Water Solub:			
Geo Mean Sol:	4.8E+03	mg/L	CRC

OTHER DATA

Melting Point:	-3.8E+01	°C
Boiling Point:	3.5E+02	°C
Formula:	Hg	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Mercury (elemental)

CAS Number:

007439-97-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.2		Water Solub:								
Gas Migration:	17		Distrib:	5.2E+01							
			Geo Mean Sol:	4.8E+03							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/	2E-03	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	2E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	3E-04	mg/m3	Non Cancer Risk:	4E-03	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E-03	mg/L	FDAAL:	1E+00	ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	1.4E+00	µg/L			
Non Cancer Risk:	4E-03	mg/L	Non Cancer Risk:	4E-01	mg/kg	Salt CMC:	1.8E+00	µg/L			
						CHRONIC					
						Fresh CCC:	7.7E-01	µg/L			
						Salt CCC:	9.4E-01	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methoxychlor

CAS Number:

000072-43-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.8E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:	3.0E-02	µg/L	NRWQC
Salt CCC:	3.0E-02	µg/L	NRWQC
Fresh Ecol LC50:	8.5E-02	µg/L	ECOTOX
Salt Ecol LC50:	2.1E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.8E+02	days	HEDR
Volatility:	3.8E+02	days	THOMAS
Photolysis:	1.3E+02	days	CHEMFATE
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.8E+02	days	HEDR
Volatility:	2.2E+02	days	THOMAS
Photolysis:	1.3E+02	days	CHEMFATE
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	5.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.4E+02	
Density:	1.4E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.5E-06	Torr	PHYSPROP
Henry's Law:	2.0E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.0E-01	mg/L	PHYSPROP
Distrib Coef:	4.0E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.5E+02		ECOTOX
Salt BCF:	1.2E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	8.5E+03		ECOTOX
Salt BCF:	1.2E+04		ECOTOX
Log Kow:	5.0E+00		EPI_EXP
Water Solub:	1.0E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.7E+01	°C
Boiling Point:	3.4E+02	°C
Formula:	C16H15Cl3O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl Ethyl Ketone (2-Butanone)

CAS Number:

000078-93-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-01	mg/kg/day	IRIS
Inhal RfD:	1.4E+00	mg/kg/day	IRIS
RfC	5.0E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.2E+05	µg/L	ECOTOX
Salt Ecol LC50:	4.0E+05	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.8E+04	days	HEDR
Volatility:	7.5E+01	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.8E+04	days	HEDR
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	2.9E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.2E+01	
Density:	7.9E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.0E+01	Torr	PHYSPROP
Henry's Law:	5.6E-05	atm-m3/mol	PHYSPROP
Water Solub:	2.2E+05	mg/L	PHYSPROP
Distrib Coef:	6.8E-01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.9E-01		EPI_EXP
Water Solub:	2.2E+05		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.6E+01	°C
Boiling Point:	7.9E+01	°C
Formula:	C4H8O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl Ethyl Ketone (2-Butanone)

CAS Number:

000078-93-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub: 2.2E+05
Distrib: 6.8E-01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 1

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 5E+00 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 4E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 9E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 8E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl Parathion

CAS Number:

000298-00-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.5E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.5E+01	mg/kg	ACGIH
Dermal LD50:	6.0E+00	mg/kg	ACGIH
Gas Inhal LC50:	1.1E+01	ppm	ACGIH
Dust Inhal LC50:	1.2E+02	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.3E-04	µg/L	ECOTOX
Salt Ecol LC50:	1.7E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	7.2E+01	days	CHEMFATE
Volatility:	5.4E+02	days	THOMAS
Photolysis:	3.8E+01	days	CHEMFATE
Biodeg:	2.2E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	7.2E+01	days	CHEMFATE
Volatility:	3.9E+02	days	THOMAS
Photolysis:	3.8E+01	days	CHEMFATE
Biodeg:	2.2E+01	days	CHEMFATE
Radio:		days	
Log Kow:	2.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+02	
Density:	1.3E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E-06	Torr	PHYSPROP
Henry's Law:	1.0E-07	atm-m3/mol	PHYSPROP
Water Solub:	3.7E+01	mg/L	PHYSPROP
Distrib Coef:	1.1E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.1E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	7.1E+01		ECOTOX
Salt BCF:			
Log Kow:	2.8E+00		EPI_EXP
Water Solub:	3.7E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.5E+01	°C
Boiling Point:	1.5E+02	°C
Formula:	C8H10NO5PS	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Methyl Parathion

CAS Number: 000298-00-0

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.002		Water Solub:	3.7E+01							
Gas Migration:	6		Distrib:	1.1E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	2.0E-01						
				Non Karst:	2.0E-03						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	50		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1.9E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	3.9E-03	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3.9E-03	mg/L	Non Cancer Risk:	3.3E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl isobutyl ketone

CAS Number:

000108-10-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-02	mg/kg/day	HEAST
Inhal RfD:	8.5E-01	mg/kg/day	IRIS
RfC	3.0E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.0E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.1E+04	ppm	ACGIH
Dust Inhal LC50:	4.8E+04	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.6E+05	µg/L	ECOTOX
Salt Ecol LC50:	1.2E+06	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.8E+01	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	1.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.9E+01	Torr	PHYSPROP
Henry's Law:	1.3E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.9E+04	mg/L	PHYSPROP
Distrib Coef:	1.9E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.3E+00		EPI_EXP
Water Solub:	1.9E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.4E+01	°C
Boiling Point:	1.1E+02	°C
Formula:	C6H12O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Methyl isobutyl ketone

CAS Number: 000108-10-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 1.9E+04
Distrib: 1.9E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 1

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 3E+00 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 6E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl tert-Butyl Ether (MTBE)

CAS Number:

001634-04-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:	8.5E-01	mg/kg/day	IRIS
RfC	3.0E+00	mg/m^3	IRIS
Oral Slope:	1.8E-03	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B		CALEPA
IUR:	2.6E-07	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		CALEPA
Inhal Slope:	9.1E-04	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.7E+05	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+06	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.3E+01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	HEDR
Volatility:	9.3E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	9.4E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	8.8E+01	
Density:	7.3E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.5E+02	Torr	PHYSPROP
Henry's Law:	5.8E-04	atm-m3/mol	PHYSPROP
Water Solub:	5.1E+04	mg/L	PHYSPROP
Distrib Coef:	1.7E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	9.4E-01		EPI_EXP
Water Solub:	5.1E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.0E+02	°C
Boiling Point:	5.5E+01	°C
Formula:	C5H12O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Methyl tert-Butyl Ether (MTBE)

CAS Number: 001634-04-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10		Toxicity:		10		Toxicity:		10	
Gas Mobility:		1		Water Solub:		5.1E+04					
Gas Migration:		17		Distrib:		1.7E+00					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E+00			
				Non Liq		Karst:		1.0E+00			
						Non Karst:		1.0E+00			
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10		Toxicity:		10		Fresh Tox:		1	
								Salt Tox:		1	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		5		Fresh:		5	
				Salt:		5		Salt:		5	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	3.5E+02	mg/kg	MCL:		pCi/L
Cancer Risk:	9.3E-03	mg/m3	Cancer Risk:	3.7E-02	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	3E+00	mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	3.7E-02	mg/L	Cancer Risk:	1.7E+00	mg/kg	Fresh CMC:			µg/L		
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:			µg/L		
									CHRONIC		
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methyl-4-chlorophenoxyacetic acid, 2- (MCPA)

CAS Number:

000094-74-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	7.0E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.6E+02	ppm	RTECS
Dust Inhal LC50:	1.3E+03	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.2E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.3E+05	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+04	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+04	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+00	days	HEDR
Radio:		days	
Log Kow:	3.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.9E-06	Torr	PHYSPROP
Henry's Law:	1.3E-09	atm-m3/mol	PHYSPROP
Water Solub:	6.3E+02	mg/L	PHYSPROP
Distrib Coef:	4.5E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.2E+00		EPI_EXP
Water Solub:	6.3E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.2E+02	°C
Boiling Point:	2.8E+02	°C
Formula:	C9H9ClO3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Methyl-4-chlorophenoxyacetic acid, 2- (MCPA)

CAS Number: 000094-74-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	0.002		Water Solub:	6.3E+02							
Gas Migration:	0		Distrib:	4.5E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	10000				
						Salt Tox:	1				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	3E+01	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	7E-03	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	7E-03	mg/L	Non Cancer Risk:	6E-01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methylene Chloride

CAS Number:

000075-09-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	IRIS
Inhal RfD:	1.7E-01	mg/kg/day	IRIS
RfC	6.0E-01	mg/m^3	IRIS
Oral Slope:	2.0E-03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	1.0E-08	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	3.5E-05	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+05	µg/L	ECOTOX
Salt Ecol LC50:	6.1E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.5E+05	days	HEDR
Volatility:	8.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.5E+05	days	HEDR
Volatility:	8.7E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	1.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	8.4E+01	
Density:	1.3E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.3E+02	Torr	PHYSPROP
Henry's Law:	3.2E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.3E+04	mg/L	PHYSPROP
Distrib Coef:	3.3E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	5.7E+02		ECOTOX
Salt BCF:			
Log Kow:	1.2E+00		EPI_EXP
Water Solub:	1.3E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.5E+01	°C
Boiling Point:	4.0E+01	°C
Formula:	CH2Cl2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methylanthalene, 2-

CAS Number:

000091-57-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+03	µg/L	ECOTOX
Salt Ecol LC50:	4.7E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+02	days	THOMAS
Photolysis:	2.2E+00	days	CHEMFATE
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	THOMAS
Photolysis:	2.2E+00	days	CHEMFATE
Biodeg:		days	
Radio:		days	
Log Kow:	3.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.4E+02	
Density:	1.0E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.5E-02	Torr	PHYSPROP
Henry's Law:	5.1E-04	atm-m3/mol	PHYSPROP
Water Solub:	2.4E+01	mg/L	PHYSPROP
Distrib Coef:	3.7E+02	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.3E+04		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.3E+04		ECOTOX
Salt BCF:			
Log Kow:	3.8E+00		EPI_EXP
Water Solub:	2.4E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.4E+01	°C
Boiling Point:	2.4E+02	°C
Formula:	C11H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Methylnaphthalene, 2-

CAS Number: 000091-57-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Toxicity:		1000	
Gas Mobility:		0.2		Water Solub:		2.4E+01					
Gas Migration:		11		Distrib:		3.7E+02					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E-02			
				Non Liq		Karst:		2.0E-01			
						Non Karst:		2.0E-03			
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Fresh Tox:		100	
								Salt Tox:		1000	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		50000		Fresh:		50000	
				Salt:		50000		Salt:		50000	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	3E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	6E-02	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methylphenol, 4-

CAS Number:

000106-44-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-01	mg/kg/day	ATSDR
Inhal RfD:	1.7E-01	mg/kg/day	CALEPA
RfC	6.0E-01	mg/m^3	CALEPA
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	C		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.6E+02	mg/kg	RTECS
Dermal LD50:	3.0E+02	mg/kg	RTECS
Gas Inhal LC50:	6.5E+00	ppm	RTECS
Dust Inhal LC50:	2.9E+01	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+03	µg/L	ECOTOX
Salt Ecol LC50:	2.5E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:	8.0E-04	days	CHEMFATE
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.6E+01	days	THOMAS
Photolysis:	8.0E-04	days	CHEMFATE
Biodeg:		days	
Radio:		days	
Log Kow:	1.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-01	Torr	PHYSPROP
Henry's Law:	1.0E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.1E+04	mg/L	PHYSPROP
Distrib Coef:	4.5E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	2.0E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:	2.5E+01		ECOTOX
Log Kow:	1.9E+00		EPI_EXP
Water Solub:	2.1E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.5E+01	°C
Boiling Point:	2.0E+02	°C
Formula:	C7H8O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Methylphenol, 4-

CAS Number:

000106-44-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:	1		Water Solub:	2.1E+04							
Gas Migration:	11		Distrib:	4.5E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	0.0007		River:	0.0007		River:	0.0007				
Lake:	0.0007		Lake:	0.0007		Lake:	0.0007				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	50		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	7E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	6E-01	mg/m3	Non Cancer Risk:	1E+00	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E+00	mg/L	Non Cancer Risk:	1E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Naphthalene

CAS Number:

000091-20-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:	8.5E-04	mg/kg/day	IRIS
RfC	3.0E-03	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	3.4E-05	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	C		CALEPA
Inhal Slope:	1.1E-01	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.1E+02	µg/L	ECOTOX
Salt Ecol LC50:	6.8E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+02	days	THOMAS
Photolysis:	5.5E+02	days	HEDR
Biodeg:	9.0E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+00	days	THOMAS
Photolysis:	5.5E+02	days	HEDR
Biodeg:	9.0E+00	days	CHEMFATE
Radio:		days	
Log Kow:	3.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	1.0E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.5E-02	Torr	PHYSPROP
Henry's Law:	4.4E-04	atm-m3/mol	PHYSPROP
Water Solub:	3.1E+01	mg/L	PHYSPROP
Distrib Coef:	2.3E+02	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.3E+04		ECOTOX
Salt BCF:	1.1E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.3E+05		ECOTOX
Salt BCF:	1.1E+03		ECOTOX
Log Kow:	3.3E+00		EPI_EXP
Water Solub:	3.1E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.0E+01	°C
Boiling Point:	2.1E+02	°C
Formula:	C10H8	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Naphthalene

CAS Number:

000091-20-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Toxicity:		1000	
Gas Mobility:		0.2		Water Solub:		3.1E+01					
Gas Migration:		11		Distrib:		2.3E+02					
				Geo Mean Sol:							
				Mobility							
Liquid		Karst:		1.0E+00							
		Non Karst:		1.0E-02							
Non Liq		Karst:		2.0E-01							
		Non Karst:		2.0E-03							
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Fresh Tox:		1000	
								Salt Tox:		1000	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		50000		Fresh:		50000	
				Salt:		5000		Salt:		5000	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:	7.1E-05	mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	3E-03	mg/m3	Non Cancer Risk:	3E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-01	mg/L	Non Cancer Risk:	2E+01	mg/kg	Salt CMC:		µg/L			
									CHRONIC		
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Nickel

CAS Number:

007440-02-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:	2.5E-05	mg/kg/day	ATSDR
RfC	9.0E-05	mg/m^3	ATSDR
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	4.8E-04	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	1.6E+00	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:	A		EPA_ED10
Inhal ED10:	1.0E-01	mg/kg/day	SPHEM
Inhal ED10 Wgt:	A		EPA_ED10
Oral LD50:	2.5E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	4.7E+02	µg/L	NRWQC
Salt CMC:	7.4E+01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.2E+01	µg/L	NRWQC
Salt CCC:	8.2E+00	µg/L	NRWQC
Fresh Ecol LC50:	5.0E-02	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-5.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.8E+01	
Density:	8.9E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.5E+01	ml/g	SSG
Geo Mean Sol:	1.9E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	8.7E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.7E+04		ECOTOX
Salt BCF:	8.7E+00		ECOTOX
Log Kow:	-5.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.9E+05	mg/L	CRC

OTHER DATA

Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Ni	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Nickel

CAS Number: 007440-02-0

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.5E+01							
			Geo Mean Sol:	1.9E+05							
			Mobility								
			Liquid Karst:	1.0E+00							
			Non Karst:	1.0E-02							
			Non Liq Karst:	1.0E+00							
			Non Karst:	1.0E-02							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	100				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5		Fresh:	50000				
			Salt:	5		Salt:	5				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:	5.0E-06	mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	1E+03	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	9E-05	mg/m3	Non Cancer Risk:	3E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	4.7E+02	µg/L			
Non Cancer Risk:	3E-01	mg/L	Non Cancer Risk:	2E+01	mg/kg	Salt CMC:	7.4E+01	µg/L			
						CHRONIC					
						Fresh CCC:	5.2E+01	µg/L			
						Salt CCC:	8.2E+00	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Nickel 59 (radionuclide)

CAS Number:

014336-70-0

TOXICITY			
Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.8E-13	(pCi)^-1	OSRTI_PRG
	Soil: 7.3E-13	(pCi)^-1	OSRTI_PRG
	Water: 2.7E-13	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.4E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	0.00E+00	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.2E-06		OSRTI_PRG
Area Correct.:	0.00E+00	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+07	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+07	days	HEAST
Log Kow:	-5.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	5.8E+01		
Density:	8.9E+00	g/mL @	25.0 °C

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.5E+01	ml/g	SSG
Geo Mean Sol:	1.9E+05	mg/L	CRC

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	8.7E+00		ECOTOX
Salt BCF:	8.7E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.7E+04		ECOTOX
Salt BCF:	8.7E+00		ECOTOX
Log Kow:	-5.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.9E+05	mg/L	CRC

OTHER DATA		
Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Ni-59	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Nickel 59 (radionuclide)

CAS Number: 014336-70-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub:
Distrib: 6.5E+01
Geo Mean Sol: 1.9E+05
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

Bioaccumulation
Fresh: 50000
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 3E+02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 3E+02 pCi/L
UMTRCA: pCi/kg

CANCER RISK

Air: 2.19E+00 pCi/m3
DW: 1.93E+02 pCi/L
FC: 4.53E+03 pCi/kg
Soil Ing: 1.08E+06 pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 3E+02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Nickel 63 (radionuclide)

CAS Number:

013981-37-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 9.5E-13	(pCi)^-1	OSRTI_PRG
	Soil: 1.7E-12	(pCi)^-1	OSRTI_PRG
	Water: 6.7E-13	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	5.7E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	0.00E+00	(yr)^-1/pCi[(g)^-1]	
Lambda:	7.2E-03		OSRTI_PRG
Area Correct.:	0.00E+00	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.5E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.5E+04	days	HEAST
Log Kow:	-5.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	5.8E+01	
Density:	8.9E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.5E+01	ml/g	SSG
Geo Mean Sol:	1.9E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.7E+00		ECOTOX
Salt BCF:	8.7E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.7E+04		ECOTOX
Salt BCF:	8.7E+00		ECOTOX
Log Kow:	-5.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.9E+05	mg/L	CRC

OTHER DATA

Melting Point:	1.4E+03	°C
Boiling Point:	2.9E+03	°C
Formula:	Ni-63	

CLASS INFORMATION

Parent Substance

Nickel

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Nickel 63 (radionuclide)

CAS Number: 013981-37-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1000			Toxicity:	1000			Toxicity:	1000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:	6.5E+01						
				Geo Mean Sol:	1.9E+05						
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
				Non Liq	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	1000			Toxicity:	1000			Fresh Tox:	1000		
								Salt Tox:	1000		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	5			Fresh:	50000		
				Salt:	5			Salt:	5		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	9.16E-01	pCi/m3
									DW:	7.8E+01	pCi/L
									FC:	1.85E+03	pCi/kg
									Soil Ing:	4.93E+05	pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:				µg/L	
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:				µg/L	
						CHRONIC					
						Fresh CCC:				µg/L	
						Salt CCC:				µg/L	

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Nitrobenzene

CAS Number:

000098-95-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.5E-03	mg/kg/day	IRIS
RfC	9.0E-03	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	4.0E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	1.4E-01	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	4.7E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.9E+01	days	THOMAS
Photolysis:	1.3E+02	days	CHEMFATE
Biodeg:	2.0E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.2E+00	days	THOMAS
Photolysis:	1.3E+02	days	CHEMFATE
Biodeg:	2.0E+02	days	HEDR
Radio:		days	
Log Kow:	1.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.4E-01	Torr	PHYSPROP
Henry's Law:	2.4E-05	atm-m3/mol	PHYSPROP
Water Solub:	2.0E+03	mg/L	PHYSPROP
Distrib Coef:	3.4E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.0E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.4E+01		ECOTOX
Salt BCF:			
Log Kow:	1.8E+00		EPI_EXP
Water Solub:	2.0E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	5.7E+00	°C
Boiling Point:	2.1E+02	°C
Formula:	C6H5NO2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Nitrobenzene

CAS Number: 000098-95-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 2.0E+03
Distrib: 3.4E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6E-05 mg/m3
Non Cancer Risk: 9E-03 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date:

06/20/2014

Chemical: Nitrosodimethylamine, N-

CAS Number:

000062-75-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-06	mg/kg/day	PPRTV
Inhal RfD:	1.1E-05	mg/kg/day	PPRTV APPEN
RfC	4.0E-05	mg/m^3	PPRTV APPEN
Oral Slope:	5.1E+01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.4E-02	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	4.9E+01	(mg/kg/day)^-1	IRIS
Oral ED10:	1.6E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.6E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	2.7E+01	mg/kg	ACGIH
Dermal LD50:	1.5E+01	mg/kg	RTECS
Gas Inhal LC50:	5.7E+01	ppm	ACGIH
Dust Inhal LC50:	1.7E-01	mg/L	ACGIH
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.7E+05	µg/L	ECOTOX
Salt Ecol LC50:	3.3E+06	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.7E+01	days	THOMAS
Photolysis:	4.1E-02	days	HEDR
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+01	days	THOMAS
Photolysis:	4.1E-02	days	HEDR
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	-5.7E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.4E+01	
Density:	1.0E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.7E+00	Torr	PHYSPROP
Henry's Law:	1.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:	3.4E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-5.7E-01		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.5E+01	°C
Boiling Point:	1.5E+02	°C
Formula:	C2H6N2O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date:

06/20/2014

Chemical: Nitrosodimethylamine, N-

CAS Number:

000062-75-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.0E+06
Distrib: 3.4E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 0.0007
Lake: 0.07

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 1

Persistence
River: 0.0007
Lake: 0.07

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.8E-08 mg/m3
Non Cancer Risk: 4E-05 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 4.2E-07 mg/L
Non Cancer Risk: 1E-04 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 2.9E-03 mg/kg
Non Cancer Risk: 6E-01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 4.2E-07 mg/L
Non Cancer Risk: 1E-04 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 6.1E-05 mg/kg
Non Cancer Risk: 1E-02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Nitrosodiphenylamine, N-

CAS Number:

000086-30-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	4.9E-03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	2.6E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	9.1E-03	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.8E+03	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.4E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.9E+01	days	THOMAS
Photolysis:		days	
Biodeg:	3.4E+01	days	HEDR
Radio:		days	
Log Kow:	3.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E-01	Torr	PHYSPROP
Henry's Law:	1.2E-06	atm-m3/mol	PHYSPROP
Water Solub:	3.5E+01	mg/L	PHYSPROP
Distrib Coef:	4.0E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.1E+02		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.1E+02		ECOTOX
Salt BCF:			
Log Kow:	3.1E+00		EPI_EXP
Water Solub:	3.5E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	6.6E+01	°C
Boiling Point:	3.5E+02	°C
Formula:	C12H10N2O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Nitrosodiphenylamine, N-

CAS Number: 000086-30-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:	0.2		Water Solub:	3.5E+01							
Gas Migration:	11		Distrib:	4.0E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	2.0E-01						
				Non Karst:	2.0E-03						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	500				
			Salt:	500		Salt:	500				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.3E+02	mg/kg	MCL:		pCi/L
Cancer Risk:	9.3E-04	mg/m3	Cancer Risk:	1.3E-02	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.3E-02	mg/L	Cancer Risk:	6.4E-01	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Octachlorodibenzo-p-Dioxin 1,2,3,4,6,7,8,9- (OCDD)

CAS Number:

003268-87-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-13	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.9E+01	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-02	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E+01	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+00	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.2E-13	Torr	PHYSPROP
Henry's Law:	6.7E-06	atm-m3/mol	PHYSPROP
Water Solub:	4.0E-07	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.4E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.0E+04		ECOTOX
Salt BCF:			
Log Kow:	8.2E+00		EPI_EXP
Water Solub:	4.0E-07		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.3E+02	°C
Boiling Point:	5.1E+02	°C
Formula:	C12Cl8O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Octachlorodibenzo-p-Dioxin 1,2,3,4,6,7,8,9- (OCDD)

CAS Number: 003268-87-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	4.0E-07							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	5000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.6E-02	mg/kg	MCL:		pCi/L
Cancer Risk:	2.2E-07	mg/m3	Cancer Risk:	1.7E-06	mg/L	Non Cancer Risk:	1E-08	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	3E-12	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.7E-06	mg/L	Cancer Risk:	8.0E-05	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-12	mg/L	Non Cancer Risk:	2E-10	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Octachlorodibenzofuran 1,2,3,4, 6,7,8,9-(OCDF)

CAS Number:

039001-02-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-13	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.9E+01	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E-02	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E+01	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	2.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.9E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.4E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.7E-12	Torr	PHYSPROP
Henry's Law:	1.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.1E-06	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.0E+03		ECOTOX
Salt BCF:			
Log Kow:	8.6E+00		EPI_EXP
Water Solub:	1.1E-06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.5E+02	°C
Boiling Point:	4.5E+02	°C
Formula:	C12Cl8O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Octachlorodibenzofuran 1,2,3,4, 6,7,8,9-(OCDF)

CAS Number: 039001-02-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.1E-06
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 2.2E-07 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.7E-06 mg/L
Non Cancer Risk: 3E-12 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.6E-02 mg/kg
Non Cancer Risk: 1E-08 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.7E-06 mg/L
Non Cancer Risk: 3E-12 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 8.0E-05 mg/kg
Non Cancer Risk: 2E-10 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pentachlorodibenzo-p-dioxin, 1,2,3,7,8-

CAS Number:

040321-76-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-10	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+05	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+01	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+05	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	3.1E-03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.9E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.3E-10	Torr	PHYSPROP
Henry's Law:	2.6E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.5E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	6.6E+00		EPI_EXP
Water Solub:	1.5E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.4E+02	°C
Boiling Point:	3.9E+02	°C
Formula:	C12H3Cl5O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Pentachlorodibenzo-p-dioxin, 1,2,3,7,8-

CAS Number: 040321-76-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:	1.5E-04							
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	4.9E-06	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-11	mg/m3	Cancer Risk:	5.1E-10	mg/L	Non Cancer Risk:	5E-05	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-08	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-10	mg/L	Cancer Risk:	2.4E-08	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-08	mg/L	Non Cancer Risk:	9E-07	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pentachlorodibenzofuran, 1,2,3,7,8-

CAS Number:

057117-41-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.9E+03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E+03	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	5.7E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.4E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.7E-09	Torr	PHYSPROP
Henry's Law:	1.1E-05	atm-m3/mol	PHYSPROP
Water Solub:	8.7E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	6.9E+00		EPI_EXP
Water Solub:	8.7E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.2E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C12H3Cl5O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Pentachlorodibenzofuran, 1,2,3,7,8-

CAS Number: 057117-41-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 8.7E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 2.2E-09 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1.7E-08 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1.6E-04 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 1.7E-08 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: 8.0E-07 ppm
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pentachlorodibenzofuran, 2,3,4,7,8-

CAS Number:

057117-31-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-10	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	3.9E+04	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	1.1E+01	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	3.8E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E-02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.4E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.6E-09	Torr	PHYSPROP
Henry's Law:	5.0E-06	atm-m3/mol	PHYSPROP
Water Solub:	2.3E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	6.9E+00		EPI_EXP
Water Solub:	2.3E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.9E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C12H3Cl5O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Pentachlorodibenzofuran, 2,3,4,7,8-

CAS Number: 057117-31-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.0002		Water Solub:	2.3E-04							
Gas Migration:	6		Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	1.6E-05	mg/kg	MCL:		pCi/L
Cancer Risk:	2.2E-10	mg/m3	Cancer Risk:	1.7E-09	mg/L	Non Cancer Risk:	1E-05	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	3E-09	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.7E-09	mg/L	Cancer Risk:	8.0E-08	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E-09	mg/L	Non Cancer Risk:	2E-07	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pentachlorophenol (PCP)

CAS Number:

000087-86-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	4.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	5.1E-06	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B		IRIS
Inhal Slope:	1.7E-02	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:	D		EPA_ED10
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:	D		EPA_ED10
Oral LD50:	1.5E+02	mg/kg	ACGIH
Dermal LD50:	9.6E+01	mg/kg	ACGIH
Gas Inhal LC50:	1.8E+01	ppm	RTECS
Dust Inhal LC50:	2.0E+02	mg/L	RTECS
ACUTE			
Fresh CMC:	1.9E+01	µg/L	NRWQC
Salt CMC:	1.3E+01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.5E+01	µg/L	NRWQC
Salt CCC:	7.9E+00	µg/L	NRWQC
Fresh Ecol LC50:	4.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	2.3E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+03	days	THOMAS
Photolysis:	1.9E+00	days	CHEMFATE
Biodeg:	1.7E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+03	days	THOMAS
Photolysis:	1.9E+00	days	CHEMFATE
Biodeg:	1.7E+02	days	HEDR
Radio:		days	
Log Kow:	5.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.6E+02	
Density:	1.9E+00	g/mL @ 22.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-04	Torr	PHYSPROP
Henry's Law:	2.4E-08	atm-m3/mol	PHYSPROP
Water Solub:	1.4E+01	mg/L	PHYSPROP
Distrib Coef:	7.5E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.5E+04		ECOTOX
Salt BCF:	1.2E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.5E+04		ECOTOX
Salt BCF:	3.8E+03		ECOTOX
Log Kow:	5.1E+00		EPI_EXP
Water Solub:	1.4E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+02	°C
Boiling Point:	3.0E+02	°C
Formula:	C6HCl5O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pentachlorophenol (PCP)

CAS Number:

000087-86-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.4E+01
Distrib: 7.5E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 2.0E-01
Non Karst: 2.0E-03

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 1000

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 4.7E-04 mg/m3
Non Cancer Risk: 7E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 1E-04 mg/L
Non Cancer Risk: 7E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 1E+00 mg/kg
Non Cancer Risk: 3E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E-03 mg/L
Cancer Risk: 1E-04 mg/L
Non Cancer Risk: 7E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 7E-03 mg/kg
Non Cancer Risk: 6E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 1.9E+01 µg/L
Salt CMC: 1.3E+01 µg/L
CHRONIC
Fresh CCC: 1.5E+01 µg/L
Salt CCC: 7.9E+00 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Perchlorate

CAS Number:

014797-73-0

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:	7.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	No	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.9E+01	
Density:		g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	9.9E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	ClO4-

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Phenanthrene

CAS Number:

000085-01-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	7.0E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	7.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	2.3E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:	3.4E-01	days	CHEMFATE
Biodeg:	2.0E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+00	days	THOMAS
Photolysis:	3.4E-01	days	CHEMFATE
Biodeg:	2.0E+02	days	HEDR
Radio:		days	
Log Kow:	4.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.7E+02	
Density:	9.8E-01	g/mL @ 4.00 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E-04	Torr	PHYSPROP
Henry's Law:	4.2E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.1E+00	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	1.2E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.1E+04		ECOTOX
Salt BCF:	1.2E+03		ECOTOX
Log Kow:	4.4E+00		EPI_EXP
Water Solub:	1.1E+00		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	9.9E+01	°C
Boiling Point:	3.4E+02	°C
Formula:	C14H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Phenanthrene

CAS Number:

000085-01-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1
Gas Mobility: 0.02
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1
Water Solub: 1.1E+00
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 5000
Salt: 5000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 0.4
Lake: 0.4

Bioaccumulation
Fresh: 50000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Phenol

CAS Number:

000108-95-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-01	mg/kg/day	IRIS
Inhal RfD:	5.7E-02	mg/kg/day	CALEPA
RfC	2.0E-01	mg/m^3	CALEPA
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.3E+02	mg/kg	ACGIH
Dermal LD50:	6.3E+02	mg/kg	RTECS
Gas Inhal LC50:	4.6E+01	ppm	RTECS
Dust Inhal LC50:	1.7E+02	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.7E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:	7.2E+00	days	HEDR
Biodeg:	9.0E+00	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	7.2E+01	days	THOMAS
Photolysis:	7.2E+00	days	HEDR
Biodeg:	9.0E+00	days	CHEMFATE
Radio:		days	
Log Kow:	1.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.4E+01	
Density:	1.0E+00	g/mL @ 45.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E-01	Torr	PHYSPROP
Henry's Law:	3.3E-07	atm-m3/mol	PHYSPROP
Water Solub:	8.2E+04	mg/L	PHYSPROP
Distrib Coef:	2.8E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.9E+01		ECOTOX
Salt BCF:	1.5E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.3E+04		ECOTOX
Salt BCF:	1.5E+01		ECOTOX
Log Kow:	1.4E+00		EPI_EXP
Water Solub:	8.2E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.0E+01	°C
Boiling Point:	1.8E+02	°C
Formula:	C6H6O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Phenol

CAS Number: 000108-95-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 8.2E+04
Distrib: 2.8E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 1000

Persistence
River: 1
Lake: 0.4
Bioaccumulation
Fresh: 50000
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium

CAS Number:

007440-07-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.6E-01	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.6E-01	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	2.4E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:

Water Solub:

Geo Mean Sol: mg/L

OTHER DATA

Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium

CAS Number:

007440-07-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Toxicity:	0				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 236 (radionuclide)

CAS Number:

015411-92-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
RfC		mg/m^3		Gas:	No		
Oral Slope:	Food: 9.9E-11	(pCi)^-1	OSRTI_PRG	Particulate:	Yes		
	Soil: 1.7E-10	(pCi)^-1	OSRTI_PRG	Radionuclide:	Yes		
	Water: 7.4E-11	(pCi)^-1	OSRTI_PRG	Rad. Element:	No		
Oral Wt-of-Evid:	A		HRS	Molecular Weight:	2.3E+02		
IUR:		(µg/m3)^-1		Density:	1.9E+01	g/mL @	25.0 °C
IUR Wt-of-Evid:	A		HRS	MOBILITY			
Inhal Slope:	2.2E-08	(pCi)^-1	OSRTI_PRG	Parameter	Value	Unit	Source
Extern. Exp Slope:	1.1E-10	(yr)^-1/pCi[(g)^-1]		Vapor Press:		Torr	
Lambda:	2.4E-01		OSRTI_PRG	Henry's Law:		atm-m3/mol	
Area Correct.:	9.9E-01	m^2	OSRTI_PRG	Water Solub:		mg/L	
Oral ED10:		mg/kg/day		Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Oral ED10 Wgt:				Geo Mean Sol:		mg/L	
Inhal ED10:		mg/kg/day		BIOACCUMULATION			
Inhal ED10 Wgt:				Parameter	Value	Unit	Source
Oral LD50:		mg/kg		FOOD CHAIN			
Dermal LD50:		mg/kg		Fresh BCF:	7.2E+01		ECOTOX
Gas Inhal LC50:		ppm		Salt BCF:	7.2E+01		ECOTOX
Dust Inhal LC50:		mg/L		ENVIRONMENTAL			
ACUTE				Fresh BCF:	7.8E+02		ECOTOX
Fresh CMC:		µg/L		Salt BCF:	7.8E+02		ECOTOX
Salt CMC:		µg/L		Log Kow:			
CHRONIC				Water Solub:			
Fresh CCC:		µg/L		Geo Mean Sol:		mg/L	
Salt CCC:		µg/L		OTHER DATA			
Fresh Ecol LC50:		µg/L		Melting Point:	6.4E+02	°C	
Salt Ecol LC50:		µg/L		Boiling Point:	3.2E+03	°C	
PERSISTENCE				Formula:	Pu-236		
Parameter	Value	Unit	Source				
LAKE- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	1.0E+03	days	HEAST				
RIVER- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	1.0E+03	days	HEAST				
Log Kow:							
CLASS INFORMATION							
Parent Substance							
Plutonium							

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 236 (radionuclide)

CAS Number: 015411-92-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	2.32E-04	pCi/m3
									DW:	7.08E-01	pCi/L
									FC:	1.77E+01	pCi/kg
									Soil Ing:	3.32E+04	pCi/kg
									Soil Gam:	6.15E+06	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:			µg/L		
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:			µg/L		
						CHRONIC					
						Fresh CCC:			µg/L		
						Salt CCC:			µg/L		

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 238 (radionuclide)

CAS Number:

013981-16-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.6E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.7E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.3E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.3E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	7.2E-11	(yr)^-1/pCi[(g)^-1]	
Lambda:	7.9E-03		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.2E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.2E+04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:

Water Solub:

Geo Mean Sol: mg/L

OTHER DATA

Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu-238	

CLASS INFORMATION

Parent Substance

Plutonium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 238 (radionuclide)

CAS Number: 013981-16-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 5.0E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst:
 Non Karst:

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1.5E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 1.5E+01 pCi/L
UMTRCA: pCi/kg

CANCER RISK
Air: 1.57E-04 pCi/m3
DW: 4.03E-01 pCi/L
FC: 1.04E+01 pCi/kg
Soil Ing: 3.2E+03 pCi/kg
Soil Gam: 1.5E+06 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1.5E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 239 (radionuclide)

CAS Number:

015117-48-3

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.7E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.7E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.3E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.3E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.0E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	2.8E-05		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.7E+06	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.7E+06	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+02		
Density:	1.9E+01	g/mL @	25.0 °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:
 Water Solub:
 Geo Mean Sol: mg/L

OTHER DATA		
Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu-239	

CLASS INFORMATION

Parent Substance
 Plutonium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 239 (radionuclide)

CAS Number: 015117-48-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.58E-04	pCi/m3
									DW:	3.91E-01	pCi/L
									FC:	1.01E+01	pCi/kg
									Soil Ing:	2.87E+03	pCi/kg
									Soil Gam:	5E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 240 (radionuclide)

CAS Number:

014119-33-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.7E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.7E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.3E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.3E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	6.9E-11	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.0E-04		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.3E+06	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.3E+06	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.4E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:

Water Solub:

Geo Mean Sol: mg/L

OTHER DATA

Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu-240	

CLASS INFORMATION

Parent Substance

Plutonium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 240 (radionuclide)

CAS Number: 014119-33-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.58E-04	pCi/m3
									DW:	3.91E-01	pCi/L
									FC:	1.01E+01	pCi/kg
									Soil Ing:	2.86E+03	pCi/kg
									Soil Gam:	1.44E+06	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 241 (+D) (radionuclide)

CAS Number:

014119-32-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food:	(pCi)^-1	
	Soil:	(pCi)^-1	
	Water:	(pCi)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:		(pCi)^-1	
Extern. Exp Slope:		(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Pu-241 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 241 (+D) (radionuclide)

CAS Number: 014119-32-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub:
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst:
 Non Karst:

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 242 (radionuclide)

CAS Number:

013982-10-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.6E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.6E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.2E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.1E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	6.2E-11	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.8E-06		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.3E+08	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.3E+08	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.4E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:

Water Solub:

Geo Mean Sol: mg/L

OTHER DATA

Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu-242	

CLASS INFORMATION

Parent Substance

Plutonium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 242 (radionuclide)

CAS Number: 013982-10-0

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m3	MCL/MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.69E-04	pCi/m3
									DW:	4.13E-01	pCi/L
									FC:	1.06E+01	pCi/kg
									Soil Ing:	3.01E+03	pCi/kg
									Soil Gam:	1.60E+06	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 243 (radionuclide)

CAS Number:

015706-37-3

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 6.9E-13	(pCi)^-1	OSRTI_PRG
	Soil: 1.3E-12	(pCi)^-1	OSRTI_PRG
	Water: 4.7E-13	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.9E-13	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	5.5E-08	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.2E+03		OSRTI_PRG
Area Correct.:	9.5E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.0E-01	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.0E-01	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.4E+02		
Density:	1.9E+01	g/mL @	25.0 °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	5.0E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.2E+01		ECOTOX
Salt BCF:	7.2E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+02		ECOTOX
Salt BCF:	7.8E+02		ECOTOX

Log Kow:
 Water Solub:
 Geo Mean Sol: mg/L

OTHER DATA		
Melting Point:	6.4E+02	°C
Boiling Point:	3.2E+03	°C
Formula:	Pu-243	

CLASS INFORMATION

Parent Substance
 Plutonium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 243 (radionuclide)

CAS Number: 015706-37-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	5.0E+00							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	100		Toxicity:	100		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	0.07		River:	0.07		River:	0.07				
Lake:	0.07		Lake:	0.07		Lake:	0.07				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	500				
			Salt:	50		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	1.79E+01	pCi/m3
									DW:	1.11E+02	pCi/L
									FC:	2.54E+03	pCi/kg
									Soil Ing:	2.16E+10	pCi/kg
									Soil Gam:	7.0E+07	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Plutonium 244(+D) (radionuclide)

CAS Number:

014119-34-7

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.9E-10	(pCi)^-1	OSRTI_PRG
	Soil: 3.1E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.4E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.9E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.5E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	8.6E-09		OSRTI_PRG
Area Correct.:	9.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.0E+10	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.0E+10	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA	
Melting Point:	°C
Boiling Point:	°C
Formula:	Pu-244

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Plutonium 244(+D) (radionuclide)

CAS Number: 014119-34-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	1.80E-04	pCi/m3
									DW:	3.67E-01	pCi/L
									FC:	9.2E+00	pCi/kg
									Soil Ing:	2.52E+03	pCi/kg
									Soil Gam:	6.82E+01	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Polychlorinated biphenyls (PCBs)

CAS Number:

001336-36-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-05	mg/kg/day	ATSDR
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.0E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	1.0E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	3.5E-01	(mg/kg/day)^-1	IRIS
Oral ED10:	1.9E-02	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.9E-02	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	1.9E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:	1.4E-02	µg/L	NRWQC
Salt CCC:	3.0E-02	µg/L	NRWQC
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.9E-04	Torr	PHYSPROP
Henry's Law:	4.1E-04	atm-m3/mol	PHYSPROP
Water Solub:	7.0E-01	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.1E+04		ECOTOX
Salt BCF:	1.8E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.1E+04		ECOTOX
Salt BCF:	1.8E+04		ECOTOX
Log Kow:	7.1E+00		EPI_EXP
Water Solub:	7.0E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	3.5E+02 °C
Formula:	C12H6Cl4

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Polychlorinated biphenyls (PCBs)

CAS Number: 001336-36-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.02
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 7.0E-01
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 2E-05 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 5E-04 mg/L
Cancer Risk: 3E-05 mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 3E-01 mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 5E-04 mg/L
Cancer Risk: 3E-05 mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: 3E+00 ppm
Cancer Risk: 1E-03 mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: 1.4E-02 µg/L
Salt CCC: 3.0E-02 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Pyrene

CAS Number:

000129-00-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.3E+00	µg/L	ECOTOX
Salt Ecol LC50:	8.9E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.3E+02	days	THOMAS
Photolysis:	2.8E-02	days	CHEMFATE
Biodeg:	1.8E+03	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.3E+00	days	THOMAS
Photolysis:	2.8E-02	days	CHEMFATE
Biodeg:	1.8E+03	days	HEDR
Radio:		days	
Log Kow:	4.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:	1.2E+00	g/mL @ 23.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.5E-06	Torr	PHYSPROP
Henry's Law:	1.1E-05	atm-m3/mol	PHYSPROP
Water Solub:	1.3E-01	mg/L	PHYSPROP
Distrib Coef:	8.2E+03	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.4E+06		ECOTOX
Salt BCF:	4.4E+03		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	8.4E+06		ECOTOX
Salt BCF:	6.4E+03		ECOTOX
Log Kow:	4.8E+00		EPI_EXP
Water Solub:	1.3E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.5E+02	°C
Boiling Point:	4.0E+02	°C
Formula:	C16H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Pyrene

CAS Number: 000129-00-0

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.002		Water Solub:	1.3E-01							
Gas Migration:	6		Distrib:	8.2E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	5000		Salt:	5000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	2E+03	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	4E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	4E-01	mg/L	Non Cancer Risk:	4E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Radium

CAS Number:

007440-14-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.3E-04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.3E-04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	2.2E+02	
Density:	5.0E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+02	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	6.9E+02	°C
Boiling Point:	1.7E+03	°C
Formula:	Ra	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Radium

CAS Number: 007440-14-4

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Toxicity:	0				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	4.5E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	0		Toxicity:	0		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
	</										

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Radium 226(+D) (radionuclide)

CAS Number:

013982-63-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 5.1E-10	(pCi)^-1	OSRTI_PRG
	Soil: 7.3E-10	(pCi)^-1	OSRTI_PRG
	Water: 3.8E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.1E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	8.4E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	4.3E-04		OSRTI_PRG
Area Correct.:	9.2E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+05	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+05	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Ra-226 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Radium 226(+D) (radionuclide)

CAS Number: 013982-63-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:	5	pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	4.56E-04	pCi/m3
									DW:	1.37E-01	pCi/L
									FC:	3.42E+00	pCi/kg
									Soil Ing:	1.0E+03	pCi/kg
									Soil Gam:	1.28E+01	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Radium 228(+D) (radionuclide)

CAS Number:

015262-20-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.4E-09	(pCi)^-1	OSRTI_PRG
	Soil: 2.2E-09	(pCi)^-1	OSRTI_PRG
	Water: 1.0E-09	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	5.2E-09	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.2E-05	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.2E-01		OSRTI_PRG
Area Correct.:	9.2E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.0E+03	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.0E+03	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Ra-228 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Radium 228(+D) (radionuclide)

CAS Number: 015262-20-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Toxicity:	10000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:							
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Fresh Tox:	10000		
								Salt Tox:	10000		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5		Fresh:	0.5			
				Salt:	0.5		Salt:	0.5			
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:	5	pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	1.01E-03	pCi/m3
									DW:	5.08E-02	pCi/L
									FC:	1.23E+00	pCi/kg
									Soil Ing:	1.29E+03	pCi/kg
									Soil Gam:	3.28E+01	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Radon

CAS Number:

010043-92-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.5E+00		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	2.2E+02	
Density:	9.0E+00	g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:		ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.5E+00		PHYSPROP
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-7.1E+01	°C
Boiling Point:	-6.2E+01	°C
Formula:	Rn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Radon 222(+D) (radionuclide)

CAS Number:

014859-67-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food:	(pCi)^-1	
	Soil:	(pCi)^-1	
	Water:	(pCi)^-1	
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.8E-11	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	8.4E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	6.6E+01		OSRTI_PRG
Area Correct.:	9.2E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.8E+00	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.8E+00	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Rn-222 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Radon 222(+D) (radionuclide)

CAS Number: 014859-67-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Toxicity:		1000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:							
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
				Non Karst:							
				Non Liq		Karst:					
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Fresh Tox:		1000	
								Salt Tox:		1000	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		0.5		Fresh:		0.5	
				Salt:		0.5		Salt:		0.5	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg			
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	2.9E-01	pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:	2.53E+04	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg				Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg				Salt CMC:		µg/L
						CHRONIC					
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Selenium

CAS Number:

007782-49-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-03	mg/kg/day	IRIS
Inhal RfD:	5.7E-03	mg/kg/day	CALEPA
RfC	2.0E-02	mg/m^3	CALEPA
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:	1.0E+00	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.0E+00	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	6.7E+03	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	3.0E-01	ppm	ACGIH
Dust Inhal LC50:	1.0E+00	mg/L	ACGIH
ACUTE			
Fresh CMC:	2.9E+02	µg/L	NRWQC
Salt CMC:	2.9E+02	µg/L	NRWQC
CHRONIC			
Fresh CCC:	5.0E+00	µg/L	NRWQC
Salt CCC:	7.1E+01	µg/L	NRWQC
Fresh Ecol LC50:	2.6E+02	µg/L	ECOTOX
Salt Ecol LC50:	6.8E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.4E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	7.8E+01	
Density:	4.8E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.4E-10	Torr	PHYSPROP
Henry's Law:	9.7E-03	atm-m3/mol	PHYSPROP
Water Solub:	2.0E+03	mg/L	PHYSPROP
Distrib Coef:	5.0E+00	ml/g	SSG
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.2E+01		ECOTOX
Salt BCF:	9.0E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.2E+02		ECOTOX
Salt BCF:	9.0E+02		ECOTOX
Log Kow:	2.4E-01		PHYSPROP
Water Solub:	2.0E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.2E+02	°C
Boiling Point:	6.8E+02	°C
Formula:	Se	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Silver

CAS Number:

007440-22-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E+01	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	3.2E+00	µg/L	NRWQC
Salt CMC:	1.9E+00	µg/L	NRWQC
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+00	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	1.0E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	8.3E+00	ml/g	SSG
Geo Mean Sol:	1.0E+05	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+01		VERSAR
Salt BCF:	3.8E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.8E+01		VERSAR
Salt BCF:	3.8E+05		ECOTOX
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.0E+05	mg/L	CRC

OTHER DATA

Melting Point:	9.6E+02	°C
Boiling Point:	2.1E+03	°C
Formula:	Ag	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Silver

CAS Number:

007440-22-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub:
Distrib: 8.3E+00
Geo Mean Sol: 1.0E+05
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 7E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 3E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 7E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 6E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 3.2E+00 µg/L
Salt CMC: 1.9E+00 µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Silver 108m(+D) (radionuclide)

CAS Number:

014391-65-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food:	(pCi)^-1	
	Soil:	(pCi)^-1	
	Water:	(pCi)^-1	
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:		(pCi)^-1	
Extern. Exp Slope:		(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.6E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.6E+04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Ag-108 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Silver 108m(+D) (radionuclide)

CAS Number: 014391-65-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		0		Toxicity:		0		Toxicity:		0	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:							
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E+00			
				Non Liq		Karst:					
						Non Karst:					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		0		Toxicity:		0		Fresh Tox:		0	
								Salt Tox:		0	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		0.5		Fresh:		0.5	
				Salt:		0.5		Salt:		0.5	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg			
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Silver 110m (radionuclide)

CAS Number:

014391-76-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
RfC		mg/m^3		Gas:	No		
Oral Slope:	Food: 1.3E-11	(pCi)^-1	OSRTI_PRG	Particulate:	Yes		
	Soil: 2.3E-11	(pCi)^-1	OSRTI_PRG	Radionuclide:	Yes		
	Water: 9.8E-12	(pCi)^-1	OSRTI_PRG	Rad. Element:	No		
Oral Wt-of-Evid:	A		HRS	Molecular Weight:	1.0E+02		
IUR:		(µg/m3)^-1		Density:	1.0E+01	g/mL @	25.0 °C
IUR Wt-of-Evid:	A		HRS	MOBILITY			
Inhal Slope:	2.8E-11	(pCi)^-1	OSRTI_PRG	Parameter	Value	Unit	Source
Extern. Exp Slope:	2.5E-01	(yr)^-1/pCi[(g)^-1]		Vapor Press:	4.2E-09	Torr	PHYSPROP
Lambda:	1.0E+00		OSRTI_PRG	Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Area Correct.:	9.1E-01	m^2	OSRTI_PRG	Water Solub:		mg/L	
Oral ED10:		mg/kg/day		Distrib Coef:	8.3E+00	ml/g	SSG
Oral ED10 Wgt:		mg/kg/day		Geo Mean Sol:	1.0E+05	mg/L	CRC
Inhal ED10:		mg/kg/day		BIOACCUMULATION			
Inhal ED10 Wgt:		mg/kg		Parameter	Value	Unit	Source
Oral LD50:		mg/kg		FOOD CHAIN			
Dermal LD50:		mg/kg		Fresh BCF:	2.8E+01		VERSAR
Gas Inhal LC50:		ppm		Salt BCF:	3.8E+05		ECOTOX
Dust Inhal LC50:		mg/L		ENVIRONMENTAL			
ACUTE				Fresh BCF:	2.8E+01		VERSAR
Fresh CMC:		µg/L		Salt BCF:	3.8E+05		ECOTOX
Salt CMC:		µg/L					
CHRONIC				Log Kow:	2.3E-01		PHYSPROP
Fresh CCC:		µg/L		Water Solub:			
Salt CCC:		µg/L		Geo Mean Sol:	1.0E+05	mg/L	CRC
Fresh Ecol LC50:		µg/L		OTHER DATA			
Salt Ecol LC50:		µg/L		Melting Point:	9.6E+02	°C	
PERSISTENCE				Boiling Point:	2.1E+03	°C	
Parameter	Value	Unit	Source	Formula:	Ag-110m		
LAKE- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	2.5E+02	days	HEAST				
RIVER- Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	2.5E+02	days	HEAST				
Log Kow:	2.3E-01		PHYSPROP				

CLASS INFORMATION

Parent Substance

Silver

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Silver 110m (radionuclide)

CAS Number: 014391-76-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	8.3E+00							
			Geo Mean Sol:	1.0E+05							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	9E+01	mg/L	Cancer Risk:		mg/kg	MCL:	9E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.86E-01	pCi/m3
									DW:	5.35E+00	pCi/L
									FC:	1.28E+02	pCi/kg
									Soil Ing:	1.01E+06	pCi/kg
									Soil Gam:	1.29E-02	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	9E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Strontium

CAS Number:

007440-24-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	8.7E+01	
Density:	2.6E+00	g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.0E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	1.0E+00	ml/g	BAES
Geo Mean Sol:	6.7E+03	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	9.5E+00		ECOTOX
Salt BCF:	1.0E+00		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	9.5E+00		ECOTOX
Salt BCF:	1.0E+00		ECOTOX
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	6.7E+03	mg/L	CRC

OTHER DATA

Melting Point:	7.7E+02	°C
Boiling Point:	1.3E+03	°C
Formula:	Sr	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Strontium

CAS Number: 007440-24-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1		Toxicity:		1		Toxicity:		1	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		1.0E+00					
				Geo Mean Sol:		6.7E+03					
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E+00			
				Non Liq		Karst:		1.0E+00			
						Non Karst:		1.0E+00			
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1		Toxicity:		1		Fresh Tox:		0	
								Salt Tox:		0	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		5		Fresh:		5	
				Salt:		5		Salt:		5	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	4E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:	9E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	9E+00	mg/L	Non Cancer Risk:	8E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Strontium 90(+D) (radionuclide)

CAS Number:

010098-97-2

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 9.5E-11	(pCi)^-1	OSRTI_PRG
	Soil: 1.4E-10	(pCi)^-1	OSRTI_PRG
	Water: 7.4E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.1E-10	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.9E-08	(yr)^-1/pCi[(g)^-1]	
Lambda:	2.3E-02		OSRTI_PRG
Area Correct.:	1.0E+00	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA	
Melting Point:	°C
Boiling Point:	°C
Formula:	Sr-90 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Strontium 90(+D) (radionuclide)

CAS Number: 010098-97-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	4.68E-02	pCi/m3
									DW:	7.1E-01	pCi/L
									FC:	1.85E+01	pCi/kg
									Soil Ing:	7.71E+03	pCi/kg
									Soil Gam:	7E+03	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Styrene

CAS Number:

000100-42-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-01	mg/kg/day	IRIS
RfC	1.0E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	5.1E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.6E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	2.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	9.0E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.4E+00	Torr	PHYSPROP
Henry's Law:	2.7E-03	atm-m3/mol	PHYSPROP
Water Solub:	3.1E+02	mg/L	PHYSPROP
Distrib Coef:	6.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.9E+00		EPI_EXP
Water Solub:	3.1E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.1E+01	°C
Boiling Point:	1.4E+02	°C
Formula:	C8H8	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Styrene

CAS Number: 000100-42-5

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:	1		Water Solub:	3.1E+02							
Gas Migration:	17		Distrib:	6.7E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10		Toxicity:	10		Fresh Tox:	100				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50		Fresh:	50				
			Salt:	50		Salt:	50				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/	1E-01	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	1E+04	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:	1E+00	mg/m3	Non Cancer Risk:	3E+00	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1E-01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	3E+00	mg/L	Non Cancer Risk:	2E+02	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Technetium 99 (radionuclide)

CAS Number:

014133-76-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 4.0E-12	(pCi)^-1	OSRTI_PRG
	Soil: 7.6E-12	(pCi)^-1	OSRTI_PRG
	Water: 2.7E-12	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.4E-11	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	8.1E-11	(yr)^-1/pCi[(g)^-1]	
Lambda:	3.2E-06		OSRTI_PRG
Area Correct.:	9.2E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.7E+07	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.7E+07	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	9.8E+01	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	3.3E-02	ml/g	BAES
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.1E+03	°C
Boiling Point:	4.2E+03	°C
Formula:	Tc-99	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Technetium 99 (radionuclide)

CAS Number: 014133-76-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	3.3E-02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	9E+02	mg/L	Cancer Risk:		mg/kg	MCL:	9E+02	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	3.75E-01	pCi/m3
									DW:	1.92E+01	pCi/L
									FC:	4E+02	pCi/kg
									Soil Ing:	1.03E+05	pCi/kg
									Soil Gam:	1.32E+06	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	9E+02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrachlorobenzene, 1,2,4,5-

CAS Number:

000095-94-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	8.9E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.2E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.2E+03	days	CHEMFATE
Volatility:	1.4E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	4.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.1E+02	
Density:	1.8E+00	g/mL @ 22.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.4E-03	Torr	PHYSPROP
Henry's Law:	1.0E-03	atm-m3/mol	PHYSPROP
Water Solub:	5.9E-01	mg/L	PHYSPROP
Distrib Coef:	3.3E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	4.0E+03		ECOTOX
Salt BCF:			
Log Kow:	4.6E+00		EPI_EXP
Water Solub:	5.9E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.3E+02	°C
Boiling Point:	2.4E+02	°C
Formula:	C6H2Cl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tetrachlorobenzene, 1,2,4,5-

CAS Number: 000095-94-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.2
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 5.9E-01
Distrib: 3.3E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 2.0E-03
 Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrachlorodibenzo-p-dioxin

CAS Number:

041903-57-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	7.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	6.3E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.9E+00		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.9E-11	Torr	PHYSPROP
Henry's Law:	7.0E-08	atm-m3/mol	PHYSPROP
Water Solub:	3.5E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	6.9E+00		PHYSPROP
Water Solub:	3.5E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	3.7E+02 °C
Formula:	C12H4Cl4O2

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tetrachlorodibenzo-p-dioxin

CAS Number: 041903-57-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 0
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 0
Water Solub: 3.5E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date:

06/20/2014

Chemical: Tetrachlorodibenzo-p-dioxin, 2,3,7,8- (TCDD)

CAS Number:

001746-01-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-10	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+05	(mg/kg/day)^-1	CALEPA
Oral Wt-of-Evid:	B2		CALEPA
IUR:	3.8E+01	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	B2		CALEPA
Inhal Slope:	1.3E+05	(mg/kg/day)^-1	CALEPA
Oral ED10:	1.5E-06	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.5E-06	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	1.0E-03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:	3.4E+00	days	HEDR
Biodeg:	5.9E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.5E+00	days	THOMAS
Photolysis:	3.4E+00	days	HEDR
Biodeg:	5.9E+02	days	HEDR
Radio:		days	
Log Kow:	6.8E+00		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.5E-09	Torr	PHYSPROP
Henry's Law:	5.0E-05	atm-m3/mol	PHYSPROP
Water Solub:	2.0E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.6E+04		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	8.6E+04		ECOTOX
Salt BCF:			
Log Kow:	6.8E+00		PHYSPROP
Water Solub:	2.0E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.0E+02	°C
Boiling Point:	3.7E+02	°C
Formula:	C12H4Cl4O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 03/14/2014

Publication Date:

06/20/2014

Chemical: Tetrachlorodibenzo-p-dioxin, 2,3,7,8- (TCDD)

CAS Number:

001746-01-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:	0.0002		Water Solub:	2.0E-04							
Gas Migration:	6		Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-05						
				Non Karst:	2.0E-09						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	50000		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	3E-08	mg/L	Cancer Risk:	4.9E-06	mg/kg	MCL:		pCi/L
Cancer Risk:	6.4E-11	mg/m3	Cancer Risk:	5.1E-10	mg/L	Non Cancer Risk:	5E-05	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1E-08	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	3E-08	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	5.1E-10	mg/L	Cancer Risk:	2.4E-08	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-08	mg/L	Non Cancer Risk:	9E-07	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrachlorodibenzofuran, 2,3,7,8-

CAS Number:

051207-31-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-11	mg/kg/day	RSL_TEF
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.3E+03	(mg/kg/day)^-1	RSL_TEF
Oral Wt-of-Evid:	B2		RSL_TEF
IUR:	3.8E+00	(µg/m3)^-1	RSL_TEF
IUR Wt-of-Evid:	B2		RSL_TEF
Inhal Slope:	1.3E+04	(mg/kg/day)^-1	RSL_TEF
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E-03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.5E+00		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.5E-08	Torr	PHYSPROP
Henry's Law:	1.6E-05	atm-m3/mol	PHYSPROP
Water Solub:	6.9E-04	mg/L	PHYSPROP
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.0E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.0E+05		ECOTOX
Salt BCF:			
Log Kow:	6.5E+00		PHYSPROP
Water Solub:	6.9E-04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.2E+02	°C
Boiling Point:	3.8E+02	°C
Formula:	C12H4Cl4O	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tetrachlorodibenzofuran, 2,3,7,8-

CAS Number: 051207-31-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.0002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 6.9E-04
Distrib:
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 5000

Persistence
River: 1
Lake: 1
Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 6.4E-10 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 5.1E-08 mg/L
Non Cancer Risk: 1E-09 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-04 mg/kg
Non Cancer Risk: 5E-06 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 5.1E-08 mg/L
Non Cancer Risk: 1E-09 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 2.4E-06 mg/kg
Non Cancer Risk: 9E-08 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrachloroethane, 1,1,2,2-

CAS Number:

000079-34-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	2.0E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	5.8E-05	(µg/m3)^-1	CALEPA
IUR Wt-of-Evid:	C		CALEPA
Inhal Slope:	2.0E-01	(mg/kg/day)^-1	CALEPA
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	6.7E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	4.5E+01	days	HEDR
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	4.5E+01	days	HEDR
Volatility:	1.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	2.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.5E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.6E+00	Torr	PHYSPROP
Henry's Law:	3.6E-04	atm-m3/mol	PHYSPROP
Water Solub:	2.8E+03	mg/L	PHYSPROP
Distrib Coef:	1.4E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.0E+00		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	8.0E+00		ECOTOX
Salt BCF:			
Log Kow:	2.3E+00		EPI_EXP
Water Solub:	2.8E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.3E+01	°C
Boiling Point:	1.4E+02	°C
Formula:	C2H2Cl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tetrachloroethane, 1,1,2,2-

CAS Number: 000079-34-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.8E+03
Distrib: 1.4E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5
Salt: 5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 1000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 4.1E-05 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 3E-04 mg/L
Non Cancer Risk: 3E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 3E+00 mg/kg
Non Cancer Risk: 1E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 3E-04 mg/L
Non Cancer Risk: 3E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1E-02 mg/kg
Non Cancer Risk: 2E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrachloroethylene

CAS Number:

000127-18-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-03	mg/kg/day	IRIS
Inhal RfD:	1.1E-02	mg/kg/day	IRIS
RfC	4.0E-02	mg/m^3	IRIS
Oral Slope:	2.1E-03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:	2.6E-07	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:	9.1E-04	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.6E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.3E+02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.5E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.5E+01	days	CHEMFATE
Radio:		days	
Log Kow:	3.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.6E+02	
Density:	1.6E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.8E+01	Torr	PHYSPROP
Henry's Law:	1.7E-02	atm-m3/mol	PHYSPROP
Water Solub:	2.0E+02	mg/L	PHYSPROP
Distrib Coef:	1.4E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	4.9E+01		ECOTOX
Salt BCF:	4.0E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	4.9E+01		ECOTOX
Salt BCF:	4.0E+02		ECOTOX
Log Kow:	3.4E+00		EPI_EXP
Water Solub:	2.0E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.2E+01	°C
Boiling Point:	1.2E+02	°C
Formula:	C2Cl4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tetrahydrothiophene, 1, 1-dioxide

CAS Number:

000126-33-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-03	mg/kg/day	PPRTV
Inhal RfD:	5.7E-03	mg/kg/day	PPRTV
RfC	2.0E-02	mg/m^3	PPRTV
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.9E+03	mg/kg	RTECS
Dermal LD50:	3.1E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+05	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	6.5E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-7.7E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.2E+02	
Density:	9.9E-01	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.2E-03	Torr	PHYSPROP
Henry's Law:	4.8E-06	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+06	mg/L	PHYSPROP
Distrib Coef:	1.3E+00	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	-7.7E-01		EPI_EXP
Water Solub:	1.0E+06		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.7E+01	°C
Boiling Point:	2.8E+02	°C
Formula:	C4H8O2S	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tetrahydrothiophene, 1, 1-dioxide

CAS Number: 000126-33-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.2
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 1.0E+06
Distrib: 1.3E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1
Salt Tox: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-02 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thallium

CAS Number:

007440-28-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-05	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:	1.1E+02	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.9E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.0E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	7.1E+01	ml/g	SSG
Geo Mean Sol:	5.4E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.3E+02		VERSAR
Salt BCF:	1.8E+01		VERSAR
ENVIRONMENTAL			
Fresh BCF:	1.3E+02		VERSAR
Salt BCF:	1.8E+01		VERSAR
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	5.4E+04	mg/L	CRC

OTHER DATA

Melting Point:	3.0E+02	°C
Boiling Point:	1.4E+03	°C
Formula:	Tl	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thallium

CAS Number: 007440-28-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 7.1E+01
Geo Mean Sol: 5.4E+04
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 2E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-04 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E-01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg

CANCER RISK

Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 2E-03 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-04 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 1E-02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thallium 204 (radionuclide)

CAS Number:

013968-51-9

TOXICITY			
Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 8.2E-12	(pCi)^-1	OSRTI_PRG
	Soil: 1.5E-11	(pCi)^-1	OSRTI_PRG
	Water: 5.8E-12	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.4E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.7E-09	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.8E-01		OSRTI_PRG
Area Correct.:	9.6E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.3E+03	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.3E+03	days	HEAST
Log Kow:	2.3E-01		PHYSPROP

PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.0E+02		
Density:	1.1E+01	g/mL @	25.0 °C

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	4.2E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	7.1E+01	ml/g	SSG
Geo Mean Sol:	5.4E+04	mg/L	CRC

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	1.3E+02		VERSAR
Salt BCF:	1.8E+01		VERSAR
ENVIRONMENTAL			
Fresh BCF:	1.3E+02		VERSAR
Salt BCF:	1.8E+01		VERSAR
Log Kow:	2.3E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	5.4E+04	mg/L	CRC

OTHER DATA		
Melting Point:	3.0E+02	°C
Boiling Point:	1.4E+03	°C
Formula:	Tl-204	

CLASS INFORMATION

Parent Substance
Thallium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thallium 204 (radionuclide)

CAS Number: 013968-51-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub:
Distrib: 7.1E+01
Geo Mean Sol: 5.4E+04
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 3E+02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 3E+02 pCi/L
UMTRCA: pCi/kg

CANCER RISK
Air: 2.15E+00 pCi/m3
DW: 9.04E+00 pCi/L
FC: 2.13E+02 pCi/kg
Soil Ing: 2.84E+05 pCi/kg
Soil Gam: 2.08E+05 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 3E+02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 227 (radionuclide)

CAS Number:

015623-47-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 6.9E-11	(pCi)^-1	OSRTI_PRG
	Soil: 1.3E-10	(pCi)^-1	OSRTI_PRG
	Water: 4.7E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.5E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	3.7E-07	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.3E+01		OSRTI_PRG
Area Correct.:	9.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.8E+01	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.8E+01	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.2E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+01	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+03	°C
Boiling Point:	4.7E+03	°C
Formula:	Th-227	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 227 (radionuclide)

CAS Number: 015623-47-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Toxicity:		10000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		2.0E+01					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E-02			
				Non Liq		Karst:					
						Non Karst:					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Fresh Tox:		10000	
								Salt Tox:		10000	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		0.4		Lake:		0.4		Lake:		0.4	
				Bioaccumulation				Bioaccumulation			
				Fresh:		0.5		Fresh:		0.5	
				Salt:		0.5		Salt:		0.5	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.50E-04	pCi/m3
									DW:	1.11E+00	pCi/L
									FC:	2.54E+01	pCi/kg
									Soil Ing:	2.34E+06	pCi/kg
									Soil Gam:	1.10E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 228(+D) (radionuclide)

CAS Number:

014274-82-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 4.2E-10	(pCi)^-1	HEAST
	Soil: 8.0E-10	(pCi)^-1	HEAST
	Water: 3.0E-10	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.4E-07	(pCi)^-1	HEAST
Extern. Exp Slope:	7.7E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	6.9E+02	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	6.9E+02	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Th-228 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 228(+D) (radionuclide)

CAS Number: 014274-82-9

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	3.70E-05	pCi/m3
									DW:	1E-01	pCi/L
									FC:	4.17E+00	pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 229(+D) (radionuclide)

CAS Number:

015594-54-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 7.1E-10	(pCi)^-1	OSRTI_PRG
	Soil: 1.2E-09	(pCi)^-1	OSRTI_PRG
	Water: 5.2E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.2E-07	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.1E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.4E-05		OSRTI_PRG
Area Correct.:	9.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+06	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+06	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	Th-229 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 230 (radionuclide)

CAS Number:

014269-63-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.1E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.0E-10	(pCi)^-1	OSRTI_PRG
	Water: 9.1E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	2.8E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	8.1E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.0E-06		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.8E+07	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.8E+07	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+01	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+03	°C
Boiling Point:	4.7E+03	°C
Formula:	Th-230	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 230 (radionuclide)

CAS Number: 014269-63-7

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Toxicity:	10000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:	2.0E+01						
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Fresh Tox:	10000		
								Salt Tox:	10000		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5			Fresh:	0.5		
				Salt:	0.5			Salt:	0.5		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.85E-04	pCi/m3
									DW:	5.8E-01	pCi/L
									FC:	1.48E+01	pCi/kg
									Soil Ing:	3E+03	pCi/kg
									Soil Gam:	1E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:				µg/L	
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:				µg/L	
						CHRONIC					
						Fresh CCC:				µg/L	
						Salt CCC:				µg/L	

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 231 (radionuclide)

CAS Number:

014932-40-2

TOXICITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.2E-12	(pCi)^-1	OSRTI_PRG
	Soil: 6.3E-12	(pCi)^-1	OSRTI_PRG
	Water: 2.2E-12	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.5E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.4E-08	(yr)^-1/pCi[(g)^-1]	
Lambda:	2.3E+02		OSRTI_PRG
Area Correct.:	9.8E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+00	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+00	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+02		
Density:	1.1E+01	g/mL @	25.0 °C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+01	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA		
Melting Point:	1.7E+03	°C
Boiling Point:	4.7E+03	°C
Formula:	Th-231	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 231 (radionuclide)

CAS Number: 014932-40-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Toxicity:		1000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		2.0E+01					
				Geo Mean Sol:							
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E-02			
				Non Liq		Karst:					
						Non Karst:					
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		1000		Toxicity:		1000		Fresh Tox:		1000	
								Salt Tox:		1000	
Persistence				Persistence				Persistence			
River:		0.4		River:		0.4		River:		0.4	
Lake:		0.07		Lake:		0.07		Lake:		0.07	
				Bioaccumulation				Bioaccumulation			
				Fresh:		0.5		Fresh:		0.5	
				Salt:		0.5		Salt:		0.5	

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	3.48E+00	pCi/m3
									DW:	2.39E+01	pCi/L
									FC:	5.44E+02	pCi/kg
									Soil Ing:	8.90E+08	pCi/kg
									Soil Gam:	2.96E+07	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 232 (radionuclide)

CAS Number:

007440-29-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.3E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.3E-10	(pCi)^-1	OSRTI_PRG
	Water: 1.0E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	4.3E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	3.4E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	4.9E-11		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.1E+12	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.1E+12	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+01	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+03	°C
Boiling Point:	4.7E+03	°C
Formula:	Th-232	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 232 (radionuclide)

CAS Number: 007440-29-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	2.0E+01							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	1.5E+01	mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.22E-04	pCi/m3
									DW:	5.23E-01	pCi/L
									FC:	1.32E+01	pCi/kg
									Soil Ing:	3.43E+03	pCi/kg
									Soil Gam:	2.93E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:	1.5E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Thorium 234 (radionuclide)

CAS Number:

015065-10-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.4E-11	(pCi)^-1	OSRTI_PRG
	Soil: 6.7E-11	(pCi)^-1	OSRTI_PRG
	Water: 2.3E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	3.0E-11	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.6E-08	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.0E+01		OSRTI_PRG
Area Correct.:	9.5E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+01	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+01	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.1E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+01	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+03	°C
Boiling Point:	4.7E+03	°C
Formula:	Th-233	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Thorium 234 (radionuclide)

CAS Number: 015065-10-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Toxicity:	10000		
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:	2.0E+01						
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E-02					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	10000			Toxicity:	10000			Fresh Tox:	10000		
								Salt Tox:	10000		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5			Fresh:	0.5		
				Salt:	0.5			Salt:	0.5		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:		mg/L				CANCER RISK		
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				Air:	1.72E-01	pCi/m3
									DW:	2.29E+00	pCi/L
									FC:	5.1E+01	pCi/kg
									Soil Ing:	3.7E+06	pCi/kg
									Soil Gam:	2.01E+06	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg				Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg				Salt CMC:		µg/L
						CHRONIC					
						Fresh CCC:				µg/L	
						Salt CCC:				µg/L	

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Toluene

CAS Number:

000108-88-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	8.0E-02	mg/kg/day	IRIS
Inhal RfD:	1.4E+00	mg/kg/day	IRIS
RfC	5.0E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.1E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	8.4E+01	days	THOMAS
Photolysis:		days	
Biodeg:	9.0E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.2E+03	days	CHEMFATE
Volatility:	9.1E-01	days	THOMAS
Photolysis:		days	
Biodeg:	9.0E+01	days	CHEMFATE
Radio:		days	
Log Kow:	2.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	9.2E+01	
Density:	8.6E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.8E+01	Torr	PHYSPROP
Henry's Law:	6.6E-03	atm-m3/mol	PHYSPROP
Water Solub:	5.2E+02	mg/L	PHYSPROP
Distrib Coef:	3.5E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	3.1E+01		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.0E+03		ECOTOX
Salt BCF:	3.1E+01		ECOTOX
Log Kow:	2.7E+00		EPI_EXP
Water Solub:	5.2E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.4E+01	°C
Boiling Point:	1.1E+02	°C
Formula:	C7H8	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Toluene

CAS Number:

000108-88-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	1
Gas Migration:	17

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	10
Water Solub:	5.2E+02
Distrib:	3.5E+01
Geo Mean Sol:	
Mobility	
Liquid Karst:	1.0E+00
Non Karst:	1.0E-02
Non Liq Karst:	1.0E+00
Non Karst:	1.0E-02

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	10
Persistence	
River:	0.4
Lake:	1

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	10
Persistence	
River:	0.4
Lake:	1
Bioaccumulation	
Fresh:	50
Salt:	50

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	100
Salt Tox:	100
Persistence	
River:	0.4
Lake:	1
Bioaccumulation	
Fresh:	5000
Salt:	50

BENCHMARKS

AIR PATHWAY

Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3
Cancer Risk:		mg/m3
Non Cancer Risk:	5E+00	mg/m3

GROUND WATER PATHWAY

Parameter	Value	Unit
MCL/ MCLG:	1E+00	mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	1E+00	mg/L

SOIL EXPOSURE PATHWAY

Parameter	Value	Unit
Cancer Risk:		mg/kg
Non Cancer Risk:	6E+03	mg/kg

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value	Unit
MCL/MCLG:	1E+00	mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	1E+00	mg/L

HUMAN FOOD CHAIN

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:	1E+02	mg/kg

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Toxaphene

CAS Number:

008001-35-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-03	mg/kg/day	ATSDR-Int
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.1E+00	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	3.2E-04	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.1E+00	(mg/kg/day)^-1	IRIS
Oral ED10:	1.0E-01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.0E-01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	1.5E+01	mg/kg	RTECS
Dermal LD50:	9.4E+02	mg/kg	RTECS
Gas Inhal LC50:	1.1E+02	ppm	RTECS
Dust Inhal LC50:	2.0E+03	mg/L	RTECS
ACUTE			
Fresh CMC:	7.3E-01	µg/L	NRWQC
Salt CMC:	2.1E-01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	2.0E-04	µg/L	NRWQC
Salt CCC:	2.0E-04	µg/L	NRWQC
Fresh Ecol LC50:	5.6E-01	µg/L	ECOTOX
Salt Ecol LC50:	5.4E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.6E+03	days	CHEMFATE
Volatility:	1.8E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.6E+03	days	CHEMFATE
Volatility:	1.0E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	5.9E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	4.1E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.6E-06	Torr	PHYSPROP
Henry's Law:	6.0E-06	atm-m3/mol	PHYSPROP
Water Solub:	5.5E-01	mg/L	PHYSPROP
Distrib Coef:	1.1E+04	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	7.6E+04		ECOTOX
Salt BCF:	1.5E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.6E+04		ECOTOX
Salt BCF:	1.5E+05		ECOTOX
Log Kow:	5.9E+00		EPI_EXP
Water Solub:	5.5E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	7.7E+01	°C
Boiling Point:	3.8E+02	°C
Formula:	C10H9Cl9	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Toxaphene

CAS Number: 008001-35-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 1000
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 1000
Water Solub: 5.5E-01
Distrib: 1.1E+04
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-04
Non Liq Karst: 2.0E-03
Non Karst: 2.0E-07

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 1000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 1000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: 7.6E-06 mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 6.1E-05 mg/L
Non Cancer Risk: 3E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 5.8E-01 mg/kg
Non Cancer Risk: 1E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 3E-03 mg/L
Cancer Risk: 6.1E-05 mg/L
Non Cancer Risk: 3E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 2.8E-03 mg/kg
Non Cancer Risk: 2E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 7.3E-01 µg/L
Salt CMC: 2.1E-01 µg/L

CHRONIC

Fresh CCC: 2.0E-04 µg/L
Salt CCC: 2.0E-04 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tributyltin

CAS Number:

000688-73-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E+01	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	4.0E-01	ppm	ACGIH
Dust Inhal LC50:	4.7E-03	mg/L	ACGIH
ACUTE			
Fresh CMC:	4.6E-01	µg/L	NRWQC
Salt CMC:	4.2E-01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	7.2E-02	µg/L	NRWQC
Salt CCC:	7.4E-03	µg/L	NRWQC
Fresh Ecol LC50:	1.3E+01	µg/L	ECOTOX
Salt Ecol LC50:	2.5E-02	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.4E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	4.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.9E+02	
Density:	1.1E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.9E-02	Torr	PHYSPROP
Henry's Law:	1.5E+00	atm-m3/mol	PHYSPROP
Water Solub:	7.3E-03	mg/L	PHYSPROP
Distrib Coef:	1.2E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.6E+04		ECOTOX
Salt BCF:	1.0E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.6E+04		ECOTOX
Salt BCF:	1.0E+05		ECOTOX
Log Kow:	4.1E+00		EPI_EXP
Water Solub:	7.3E-03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	8.0E+01	°C
Boiling Point:	8.0E+01	°C
Formula:	C12H28Sn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tributyltin

CAS Number: 000688-73-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.2
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 7.3E-03
Distrib: 1.2E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-05
 Non Karst: 2.0E-09

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: 4.6E-01 µg/L
Salt CMC: 4.2E-01 µg/L

CHRONIC

Fresh CCC: 7.2E-02 µg/L
Salt CCC: 7.4E-03 µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tributyltin chloride

CAS Number:

001461-22-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.3E-04	mg/kg/day	PPRTV APPEN
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	6.0E+01	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	7.0E-01	µg/L	ECOTOX
Salt Ecol LC50:	6.0E-03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.5E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.7E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	4.7E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.2E+02	
Density:	1.2E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.2E-03	Torr	PHYSPROP
Henry's Law:	7.6E-02	atm-m3/mol	PHYSPROP
Water Solub:	1.7E+01	mg/L	PHYSPROP
Distrib Coef:	1.8E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.9E+02		ECOTOX
Salt BCF:	2.1E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.3E+05		ECOTOX
Salt BCF:	4.5E+05		ECOTOX
Log Kow:	4.7E+00		EPI_EXP
Water Solub:	1.7E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.9E+01	°C
Boiling Point:	1.7E+02	°C
Formula:	C12H27ClSn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tributyltin chloride

CAS Number: 001461-22-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.2
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.7E+01
Distrib: 1.8E+03
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 50000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 5.1E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2.5E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 5.1E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4.4E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tributyltin oxide

CAS Number:

000056-35-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-04	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	D		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E+00	mg/kg	RTECS
Dermal LD50:	6.0E+02	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.8E-02	µg/L	ECOTOX
Salt Ecol LC50:	3.8E-01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	4.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.9E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.5E-06	Torr	PHYSPROP
Henry's Law:	3.0E-07	atm-m3/mol	PHYSPROP
Water Solub:	1.9E+01	mg/L	PHYSPROP
Distrib Coef:	3.9E+06	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	9.0E+02		ECOTOX
Salt BCF:	2.5E+04		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.6E+03		ECOTOX
Salt BCF:	2.5E+04		ECOTOX
Log Kow:	3.8E+00		EPI_EXP
Water Solub:	1.9E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.5E+01	°C
Boiling Point:	1.8E+02	°C
Formula:	C24H54OSn2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Tributyltin oxide

CAS Number:

000056-35-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 0.002
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.9E+01
Distrib: 3.9E+06
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-04
Non Liq Karst: 2.0E-01
 Non Karst: 2.0E-05

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 50000

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5000
Salt: 50000

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+01 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-03 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E-01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichlorobenzene, 1,2,4-

CAS Number:

000120-82-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-02	mg/kg/day	IRIS
Inhal RfD:	5.7E-04	mg/kg/day	PPRTV
RfC	2.0E-03	mg/m^3	PPRTV
Oral Slope:	2.9E-02	(mg/kg/day)^-1	PPRTV
Oral Wt-of-Evid:	B		PPRTV
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	7.6E+02	µg/L	ECOTOX
Salt Ecol LC50:	8.0E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.2E+03	days	CHEMFATE
Volatility:	1.2E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.2E+01	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	CHEMFATE
Volatility:	1.3E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.2E+01	days	CHEMFATE
Radio:		days	
Log Kow:	4.0E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.8E+02	
Density:	1.4E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.6E-01	Torr	PHYSPROP
Henry's Law:	1.4E-03	atm-m3/mol	PHYSPROP
Water Solub:	4.9E+01	mg/L	PHYSPROP
Distrib Coef:	2.0E+02	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	5.6E+03		ECOTOX
Salt BCF:	2.6E+02		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	5.6E+03		ECOTOX
Salt BCF:	2.6E+02		ECOTOX
Log Kow:	4.0E+00		EPI_EXP
Water Solub:	4.9E+01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.7E+01	°C
Boiling Point:	2.1E+02	°C
Formula:	C6H3Cl3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Trichlorobenzene, 1,2,4-

CAS Number: 000120-82-1

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:	1		Water Solub:	4.9E+01							
Gas Migration:	17		Distrib:	2.0E+02							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	2.0E-01						
				Non Karst:	2.0E-03						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	0.4		River:	0.4		River:	0.4				
Lake:	0.4		Lake:	0.4		Lake:	0.4				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	5000				
			Salt:	500		Salt:	500				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/		µg/m3	MCL/	7E-02	mg/L	Cancer Risk:	2.2E+01	mg/kg	MCL:		pCi/L
NESHAPS:			MCLG:			Non Cancer Risk:	7E+02	mg/kg	UMTRCA:		pCi/kg
Cancer Risk:		mg/m3	Cancer Risk:	2.3E-03	mg/L				CANCER RISK		
Non Cancer Risk:	2E-03	mg/m3	Non Cancer Risk:	1E-01	mg/L				Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	7E-02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	2.3E-03	mg/L	Cancer Risk:	1.0E-01	mg/kg	Fresh CMC:				µg/L	
Non Cancer Risk:	1E-01	mg/L	Non Cancer Risk:	1E+01	mg/kg	Salt CMC:				µg/L	
						CHRONIC					
						Fresh CCC:				µg/L	
						Salt CCC:				µg/L	

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichloroethane, 1,1,1-

CAS Number:

000071-55-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E+00	mg/kg/day	IRIS
Inhal RfD:	1.4E+00	mg/kg/day	IRIS
RfC	5.0E+00	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.1E+04	µg/L	ECOTOX
Salt Ecol LC50:	5.3E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	2.6E+02	days	HEDR
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:	2.7E+02	days	CHEMFATE
Radio:		days	
RIVER- Halflives			
Hydrolysis:	2.6E+02	days	HEDR
Volatility:	1.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	2.7E+02	days	CHEMFATE
Radio:		days	
Log Kow:	2.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.3E+02	
Density:	1.3E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E+02	Torr	PHYSPROP
Henry's Law:	1.7E-02	atm-m3/mol	PHYSPROP
Water Solub:	1.2E+03	mg/L	PHYSPROP
Distrib Coef:	6.6E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	9.0E+00		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	9.0E+00		ECOTOX
Salt BCF:			
Log Kow:	2.4E+00		EPI_EXP
Water Solub:	1.2E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.0E+01	°C
Boiling Point:	7.4E+01	°C
Formula:	C2H3Cl3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichloroethane, 1,1,2-

CAS Number:

000079-00-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-03	mg/kg/day	IRIS
Inhal RfD:	5.7E-05	mg/kg/day	PPRTV APPEN
RfC	2.0E-04	mg/m^3	PPRTV APPEN
Oral Slope:	5.7E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		IRIS
IUR:	1.6E-05	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:	5.6E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	4.2E+03	µg/L	ECOTOX
Salt Ecol LC50:	3.4E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.3E+04	days	HEDR
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.3E+04	days	HEDR
Volatility:	1.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	1.8E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.3E+02	
Density:	1.4E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.3E+01	Torr	PHYSPROP
Henry's Law:	8.2E-04	atm-m3/mol	PHYSPROP
Water Solub:	4.5E+03	mg/L	PHYSPROP
Distrib Coef:	9.2E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.8E+00		EPI_EXP
Water Solub:	4.5E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-3.6E+01	°C
Boiling Point:	1.1E+02	°C
Formula:	C2H3Cl3	

CLASS INFORMATION

Parent Substance

Publication Date: 06/20/2014
CAS Number: 000079-00-5

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	5E-03	mg/L	Cancer Risk:	1.1E+01	mg/kg	MCL:		pCi/L
Cancer Risk:	1.5E-04	mg/m3	Cancer Risk:	1.1E-03	mg/L	Non Cancer Risk:	3E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	2E-04	mg/m3	Non Cancer Risk:	6E-02	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	5E-03	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	1.1E-03	mg/L	Cancer Risk:	5.5E-02	mg/kg	Fresh CMC:					µg/L
Non Cancer Risk:	6E-02	mg/L	Non Cancer Risk:	5E+00	mg/kg	Salt CMC:					µg/L
						CHRONIC					
						Fresh CCC:					µg/L
						Salt CCC:					µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichloroethylene

CAS Number:

000079-01-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-04	mg/kg/day	IRIS
Inhal RfD:	5.7E-04	mg/kg/day	IRIS
RfC	2.0E-03	mg/m^3	IRIS
Oral Slope:	4.6E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	A		IRIS
IUR:	4.1E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	1.4E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.9E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.2E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	3.2E+02	days	HEDR
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	3.2E+02	days	HEDR
Volatility:	1.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	2.4E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.3E+02	
Density:	1.4E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.9E+01	Torr	PHYSPROP
Henry's Law:	9.8E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.2E+03	mg/L	PHYSPROP
Distrib Coef:	9.2E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.7E+01		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.7E+01		ECOTOX
Salt BCF:			
Log Kow:	2.4E+00		EPI_EXP
Water Solub:	1.2E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.4E+01	°C
Boiling Point:	8.7E+01	°C
Formula:	C2HCl3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichlorofluoromethane

CAS Number:

000075-69-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.0E-01	mg/kg/day	HEAST
RfC	7.0E-01	mg/m^3	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.6E+04	days	CHEMFATE
Volatility:	1.0E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	2.5E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.3E+02	
Density:	1.4E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.0E+02	Torr	PHYSPROP
Henry's Law:	9.7E-02	atm-m3/mol	PHYSPROP
Water Solub:	1.1E+03	mg/L	PHYSPROP
Distrib Coef:	6.6E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.5E+00		EPI_EXP
Water Solub:	1.1E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.1E+02	°C
Boiling Point:	2.3E+01	°C
Formula:	CCl3F	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Trichlorofluoromethane

CAS Number: 000075-69-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 1.1E+03
Distrib: 6.6E+00
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 0
Salt Tox: 0

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 7E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichlorophenol, 2,4,6-

CAS Number:

000088-06-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-03	mg/kg/day	PPRTV
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	1.1E-02	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		IRIS
IUR:	3.1E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	B2		IRIS
Inhal Slope:	1.0E-02	(mg/kg/day)^-1	IRIS
Oral ED10:	1.2E+01	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		EPA_ED10
Inhal ED10:	1.2E+01	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		EPA_ED10
Oral LD50:	7.7E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+02	µg/L	ECOTOX
Salt Ecol LC50:	1.1E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.4E+04	days	CHEMFATE
Volatility:	1.3E+02	days	THOMAS
Photolysis:	4.0E+00	days	HEDR
Biodeg:	7.0E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.4E+04	days	CHEMFATE
Volatility:	1.4E+01	days	THOMAS
Photolysis:	4.0E+00	days	HEDR
Biodeg:	7.0E+01	days	HEDR
Radio:		days	
Log Kow:	3.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.9E+02	
Density:	1.4E+00	g/mL @ 75.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.0E-03	Torr	PHYSPROP
Henry's Law:	2.6E-06	atm-m3/mol	PHYSPROP
Water Solub:	8.0E+02	mg/L	PHYSPROP
Distrib Coef:	2.7E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.1E+03		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.2E+04		ECOTOX
Salt BCF:			
Log Kow:	3.6E+00		EPI_EXP
Water Solub:	8.0E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	6.9E+01	°C
Boiling Point:	2.4E+02	°C
Formula:	C6H3Cl3O	

CLASS INFORMATION

Parent Substance

Publication Date: 06/20/2014
CAS Number: 000088-06-2

A-402

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichlorophenoxyacetic acid, 2,4,5- (2,4,5-T)

CAS Number:

000093-76-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.0E+02	mg/kg	RTECS
Dermal LD50:	1.5E+03	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.3E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	4.6E+03	days	THOMAS
Photolysis:	4.5E+01	days	HEDR
Biodeg:	2.0E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	4.5E+03	days	THOMAS
Photolysis:	4.5E+01	days	HEDR
Biodeg:	2.0E+01	days	HEDR
Radio:		days	
Log Kow:	3.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.5E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.7E-05	Torr	PHYSPROP
Henry's Law:	8.6E-09	atm-m3/mol	PHYSPROP
Water Solub:	2.7E+02	mg/L	PHYSPROP
Distrib Coef:	1.6E+01	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.7E+02		ECOTOX
Salt BCF:			
Log Kow:	3.3E+00		EPI_EXP
Water Solub:	2.7E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.5E+02	°C
Boiling Point:		°C
Formula:	C8H5Cl3O3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Trichlorophenoxyacetic acid, 2,4,5- (2,4,5-T)

CAS Number: 000093-76-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.02
Gas Migration: 6

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.7E+02
Distrib: 1.6E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 100

Persistence
River: 1
Lake: 0.4

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trichloropropane, 1,2,3-

CAS Number:

000096-18-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-03	mg/kg/day	IRIS
Inhal RfD:	8.5E-05	mg/kg/day	IRIS
RfC	3.0E-04	mg/m^3	IRIS
Oral Slope:	3.0E+01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.5E+04	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	1.6E+04	days	CHEMFATE
Volatility:	1.1E+02	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:	1.6E+04	days	CHEMFATE
Volatility:	1.2E+00	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+02	days	HEDR
Radio:		days	
Log Kow:	2.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.4E+02	
Density:	1.3E+00	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.6E+00	Torr	PHYSPROP
Henry's Law:	3.4E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.7E+03	mg/L	PHYSPROP
Distrib Coef:	1.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.2E+00		EPI_EXP
Water Solub:	1.7E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.4E+01	°C
Boiling Point:	1.5E+02	°C
Formula:	C3H5Cl3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Trichloropropane, 1,2,3-

CAS Number: 000096-18-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility: 1
Gas Migration: 11

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub: 1.7E+03
Distrib: 1.7E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10
Salt Tox: 10

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 3E-04 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: 7.1E-07 mg/L
Non Cancer Risk: 6E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: 4.9E-03 mg/kg
Non Cancer Risk: 3E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: 7.1E-07 mg/L
Non Cancer Risk: 6E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: 1.0E-04 mg/kg
Non Cancer Risk: 5E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trifluralin (Treflan)

CAS Number:

001582-09-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.5E-03	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	7.7E-03	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	C		IRIS
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	1.9E+03	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	2.0E+02	ppm	RTECS
Dust Inhal LC50:	2.8E+03	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.5E+00	µg/L	ECOTOX
Salt Ecol LC50:	5.0E+00	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.6E+02	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	2.1E+00	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	5.3E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	3.3E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.5E-05	Torr	PHYSPROP
Henry's Law:	1.0E-04	atm-m3/mol	PHYSPROP
Water Solub:	1.8E-01	mg/L	PHYSPROP
Distrib Coef:	2.4E+03	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.5E+05		ECOTOX
Salt BCF:	1.1E+04		ECOTOX
Log Kow:	5.3E+00		EPI_EXP
Water Solub:	1.8E-01		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	4.9E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C13H16F3N3O4	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Trifluralin (Treflan)

CAS Number: 001582-09-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Toxicity:	100				
Gas Mobility:	0.02		Water Solub:	1.8E-01							
Gas Migration:	11		Distrib:	2.4E+03							
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-04						
			Non Liq	Karst:	2.0E-03						
				Non Karst:	2.0E-07						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	100		Toxicity:	100		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	5000		Fresh:	50000				
			Salt:	5000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:	8.3E+01	mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:	8.7E-03	mg/L	Non Cancer Risk:	5.8E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	1.1E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:	8.7E-03	mg/L	Cancer Risk:	4.0E-01	mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1.1E-01	mg/L	Non Cancer Risk:	1.0E+01	mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trinitrobenzene, 1,3,5-

CAS Number:

000099-35-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-02	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.7E+02	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	3.4E+02	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+05	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.0E+05	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	2.1E+02	
Density:	1.4E+00	g/mL @ 152 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.4E-06	Torr	PHYSPROP
Henry's Law:	3.3E-10	atm-m3/mol	PHYSPROP
Water Solub:	2.7E+02	mg/L	PHYSPROP
Distrib Coef:	2.5E+02	ml/g	HRS
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.1E+00		EPI_EXP
Water Solub:	2.7E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.2E+02	°C
Boiling Point:	3.1E+02	°C
Formula:	C6H3N3O6	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Trinitrobenzene, 1,3,5-

CAS Number:

000099-35-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 0.002
Gas Migration: 0

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 2.7E+02
Distrib: 2.5E+02
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

ENVIRONMENTAL

Parameter Value
Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 5
Salt: 5

Bioaccumulation
Fresh: 5
Salt: 5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+03 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 4E+01 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC

Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014
Chemical: Tritium (radionuclide)

Publication Date: 06/20/2014
CAS Number: 010028-17-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.4E-13	(pCi)^-1	OSRTI_PRG
	Soil: 2.2E-13	(pCi)^-1	OSRTI_PRG
	Water: 5.0E-14	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:	5.6E-14	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	0.00E+00	(yr)^-1/pCi[(g)^-1]	
Lambda:	5.6E-02		OSRTI_PRG
Area Correct.:	0.00E+00	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.3E+03	days	SSG_RAD
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.3E+03	days	SSG_RAD

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	No	
Gas:	Yes	
Particulate:	No	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	3.0E+00	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	0.00E+00	ml/g	SSG_RAD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.5E+02	°C
Boiling Point:	-2.4E+02	°C
Formula:	H3	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Tritium (radionuclide)

CAS Number: 010028-17-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	100			Toxicity:	100			Toxicity:	100		
Gas Mobility:	1			Water Solub:							
Gas Migration:	17			Distrib:	0.00E+00						
				Geo Mean Sol:							
				Mobility							
				Liquid	Karst:	1.0E+00					
					Non Karst:	1.0E+00					
				Non Liq	Karst:						
					Non Karst:						
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value			Parameter	Value			Parameter	Value		
Toxicity:	100			Toxicity:	100			Fresh Tox:	100		
								Salt Tox:	100		
Persistence				Persistence				Persistence			
River:	1			River:	1			River:	1		
Lake:	1			Lake:	1			Lake:	1		
				Bioaccumulation				Bioaccumulation			
				Fresh:	0.5			Fresh:	0.5		
				Salt:	0.5			Salt:	0.5		
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E+04	mg/L	Cancer Risk:		mg/kg	MCL:	2E+04	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	9.41E+01	pCi/m3
									DW:	1.04E+03	pCi/L
									FC:	1.22E+04	pCi/kg
									Soil Ing:	7.4E+06	pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E+04	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg				Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg				Salt CMC:		µg/L
						CHRONIC					
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium

CAS Number:

007440-61-1

TOXICITY

Parameter	Value	Unit	Source
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:	1.1E-05	mg/kg/day	ATSDR
RfC	4.0E-05	mg/m^3	ATSDR
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	6.2E+03	µg/L	ECOTOX
Salt Ecol LC50:	6.2E+03	µg/L	ECOTOX

PERSISTENCE

Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

Parameter	Value	Unit
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	Yes	
Molecular Weight:	2.3E+02	
Density:	1.9E+01	g/mL @ °C

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-01	ml/g	SSG_RAD
Geo Mean Sol:	1.2E+06	mg/L	CRC

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.2E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.1E+03	°C
Boiling Point:	4.1E+03	°C
Formula:	U	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium

CAS Number: 007440-61-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 4.0E-01
Geo Mean Sol: 1.2E+06
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 4E-05 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 3E-02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 3E-02 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 4E-02 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: 4E+00 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 232 (radionuclide)

CAS Number:

014158-29-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 3.8E-10	(pCi)^-1	OSRTI_PRG
	Soil: 5.7E-10	(pCi)^-1	OSRTI_PRG
	Water: 2.9E-10	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.9E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	5.9E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.6E-03		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+04	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+04	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-01	ml/g	SSG_RAD
Geo Mean Sol:	1.2E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.2E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.1E+03	°C
Boiling Point:	4.1E+03	°C
Formula:	U-232	

CLASS INFORMATION

Parent Substance

Uranium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium 232 (radionuclide)

CAS Number: 014158-29-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 4.0E-01
Geo Mean Sol: 1.2E+06
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 2E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 2E+01 pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: 2.71E-04 pCi/m3
DW: 1.81E-01 pCi/L
FC: 4.58E+00 pCi/kg
Soil Ing: 1.59E+03 pCi/kg
Soil Gam: 1.93E+05 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 2E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 233 (radionuclide)

CAS Number:

013968-55-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 9.6E-11	(pCi)^-1	OSRTI_PRG
	Soil: 1.6E-10	(pCi)^-1	OSRTI_PRG
	Water: 7.1E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.1E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	9.8E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	4.3E-06		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+07	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+07	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	2.3E+02	
Density:	1.9E+01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-01	ml/g	SSG_RAD
Geo Mean Sol:	1.2E+06	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.2E+06	mg/L	CRC

OTHER DATA

Melting Point:	1.1E+03	°C
Boiling Point:	4.1E+03	°C
Formula:	U-233	

CLASS INFORMATION

Parent Substance

Uranium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium 233 (radionuclide)

CAS Number: 013968-55-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	4.0E-01							
			Geo Mean Sol:	1.2E+06							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	2E+01	mg/L	Cancer Risk:		mg/kg	MCL:	2E+01	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	4.56E-04	pCi/m3
									DW:	7.36E-01	pCi/L
									FC:	1.82E+01	pCi/kg
									Soil Ing:	4.9E+03	pCi/kg
									Soil Gam:	1.02E+05	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	2E+01	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 234 (radionuclide)

CAS Number:

013966-29-5

TOXICITY			
Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 9.5E-11	(pCi)^-1	OSRTI_PRG
	Soil: 1.5E-10	(pCi)^-1	OSRTI_PRG
	Water: 7.0E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.1E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.5E-10	(yr)^-1/pCi[(g)^-1]	
Lambda:	2.8E-06		OSRTI_PRG
Area Correct.:	9.9E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
Parameter	Value	Unit	Source
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.9E+07	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	8.9E+07	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+02		
Density:	1.9E+01	g/mL @	25.0 °C

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-01	ml/g	SSG_RAD
Geo Mean Sol:	1.2E+06	mg/L	CRC

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	1.2E+06	mg/L	CRC

OTHER DATA		
Melting Point:	1.1E+03	°C
Boiling Point:	4.1E+03	°C
Formula:	U-234	

CLASS INFORMATION

Parent Substance

Uranium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium 234 (radionuclide)

CAS Number: 013966-29-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10000
Gas Mobility:
Gas Migration:

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10000
Water Solub:
Distrib: 4.0E-01
Geo Mean Sol: 1.2E+06
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10000

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10000
Salt Tox: 10000

Persistence
River: 1
Lake: 1

Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 2E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: 2E+01 pCi/L
UMTRCA: 30 pCi/kg

CANCER RISK
Air: 4.64E-04 pCi/m3
DW: 7.48E-01 pCi/L
FC: 1.84E+01 pCi/kg
Soil Ing: 5.02E+03 pCi/kg
Soil Gam: 3.98E+05 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 2E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL:
Cancer Risk: mg/kg
Non Cancer Risk: mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 235(+D) (radionuclide)

CAS Number:

015117-96-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 9.7E-11	(pCi)^-1	OSRTI_PRG
	Soil: 1.6E-10	(pCi)^-1	OSRTI_PRG
	Water: 7.1E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	1.0E-08	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	5.4E-07	(yr)^-1/pCi[(g)^-1]	
Lambda:	9.8E-10		OSRTI_PRG
Area Correct.:	9.6E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.5E+11	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.5E+11	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	U-235 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 236(+D) (radionuclide)

CAS Number:

013982-70-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food:	(pCi)^-1	
	Soil:	(pCi)^-1	
	Water:	(pCi)^-1	
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:		(pCi)^-1	
Extern. Exp Slope:		(yr)^-1/pCi[(g)^-1]	
Lambda:			
Area Correct.:		m^2	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	U-236 (+D)

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium 236(+D) (radionuclide)

CAS Number: 013982-70-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	0		Toxicity:	0		Toxicity:	0				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	0		Toxicity:	0		Fresh Tox:	0				
						Salt Tox:	0				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Uranium 238(+D) (radionuclide)

CAS Number:

024678-82-8

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.2E-10	(pCi)^-1	OSRTI_PRG
	Soil: 2.1E-10	(pCi)^-1	OSRTI_PRG
	Water: 8.7E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	9.3E-09	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	1.1E-07	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.5E-10		OSRTI_PRG
Area Correct.:	9.7E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.6E+12	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.6E+12	days	HEAST

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:		
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	°C
Boiling Point:	°C
Formula:	U-238 (+D)

CLASS INFORMATION

Parent Substance

Uranium

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Uranium 238(+D) (radionuclide)

CAS Number: 024678-82-8

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Toxicity:	10000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:								
			Geo Mean Sol:								
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E+00						
			Non Liq	Karst:							
				Non Karst:							
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	10000		Toxicity:	10000		Fresh Tox:	10000				
						Salt Tox:	10000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	0.5		Fresh:	0.5				
			Salt:	0.5		Salt:	0.5				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:	30	pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	5.65E-04	pCi/m3
									DW:	6.07E-01	pCi/L
									FC:	1.45E+01	pCi/kg
									Soil Ing:	3.7E+03	pCi/kg
									Soil Gam:	8.98E+02	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:			µg/L		
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:			µg/L		
						CHRONIC					
						Fresh CCC:			µg/L		
						Salt CCC:			µg/L		

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Vanadium

CAS Number:

007440-62-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.0E-06	mg/kg/day	PPRTV
RfC	7.0E-06	mg/m^3	PPRTV
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:	8.3E-03	(µg/m3)^-1	PPRTV
IUR Wt-of-Evid:	C		PPRTV
Inhal Slope:	2.9E+01	(mg/kg/day)^-1	PPRTV
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:	5.9E+01	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.8E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.8E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	5.0E+01	
Density:	6.0E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.0E+03	ml/g	SSG_TECH
Geo Mean Sol:	7.0E+02	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	1.7E+04		ECOTOX
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	7.0E+02	mg/L	CRC

OTHER DATA

Melting Point:	1.9E+03	°C
Boiling Point:	3.4E+03	°C
Formula:	V	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Vanadium

CAS Number:

007440-62-2

ASSIGNED FACTOR VALUES											
AIR PATHWAY				GROUND WATER PATHWAY				SOIL EXPOSURE PATHWAY			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Toxicity:		10000	
Gas Mobility:				Water Solub:							
Gas Migration:				Distrib:		1.0E+03					
				Geo Mean Sol:		7.0E+02					
				Mobility							
				Liquid		Karst:		1.0E+00			
						Non Karst:		1.0E-02			
				Non Liq		Karst:		1.0E+00			
						Non Karst:		1.0E-02			
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>		<u>Parameter</u>		<u>Value</u>	
Toxicity:		10000		Toxicity:		10000		Fresh Tox:		100	
								Salt Tox:		100	
Persistence				Persistence				Persistence			
River:		1		River:		1		River:		1	
Lake:		1		Lake:		1		Lake:		1	
				Bioaccumulation				Bioaccumulation			
				Fresh:		500		Fresh:		50000	
				Salt:		500		Salt:		50000	
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:	2.9E-07	mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	7E+02	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	7E-06	mg/m3	Non Cancer Risk:	1E-01	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:	1E-01	mg/L	Non Cancer Risk:	1E+01	mg/kg	Salt CMC:		µg/L			
									CHRONIC		
									Fresh CCC:		µg/L
									Salt CCC:		µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Vinyl Acetate

CAS Number:

000108-05-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E+00	mg/kg/day	HEAST
Inhal RfD:	5.7E-02	mg/kg/day	IRIS
RfC	2.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.4E+04	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+04	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:	7.3E+00	days	CHEMFATE
Volatility:	8.2E+01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:	7.3E+00	days	CHEMFATE
Volatility:	9.2E-01	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.3E-01		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	8.6E+01	
Density:	9.2E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.0E+01	Torr	PHYSPROP
Henry's Law:	5.1E-04	atm-m3/mol	PHYSPROP
Water Solub:	2.0E+04	mg/L	PHYSPROP
Distrib Coef:	8.4E-01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	7.3E-01		EPI_EXP
Water Solub:	2.0E+04		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-9.3E+01	°C
Boiling Point:	7.2E+01	°C
Formula:	C4H6O2	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Vinyl Acetate

CAS Number: 000108-05-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 10
Water Solub: 2.0E+04
Distrib: 8.4E-01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E+00
Non Liq Karst: 1.0E+00
Non Karst: 1.0E+00

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 10

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 0.5
Salt: 0.5

ENVIRONMENTAL

Parameter Value
Fresh Tox: 10
Salt Tox: 100

Persistence
River: 0.4
Lake: 0.4
Bioaccumulation
Fresh: 0.5
Salt: 0.5

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 2E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+01 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 7E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 1E+01 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 1E+03 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Vinyl Chloride

CAS Number:

000075-01-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-03	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:	7.2E-01	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	A		IRIS
IUR:	4.4E-06	(µg/m3)^-1	IRIS
IUR Wt-of-Evid:	A		IRIS
Inhal Slope:	1.5E-02	(mg/kg/day)^-1	IRIS
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	1.7E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	1.7E-01	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+02	days	HEDR
Radio:		days	
Log Kow:	1.6E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	6.2E+01	
Density:	9.1E-01	g/mL @ 20.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.9E+03	Torr	PHYSPROP
Henry's Law:	2.7E-02	atm-m3/mol	PHYSPROP
Water Solub:	8.8E+03	mg/L	PHYSPROP
Distrib Coef:	3.3E+00	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.6E+00		EPI_EXP
Water Solub:	8.8E+03		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-1.5E+02	°C
Boiling Point:	-1.3E+01	°C
Formula:	C2H3Cl	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylene, P-

CAS Number:

000106-42-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.6E+03	µg/L	ECOTOX
Salt Ecol LC50:	2.0E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	3.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	8.5E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.8E+00	Torr	PHYSPROP
Henry's Law:	6.9E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+02	mg/L	PHYSPROP
Distrib Coef:	5.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+00		EPI_EXP
Water Solub:	1.6E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.3E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C8H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylene, P-

CAS Number:

000106-42-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.6E+02
Distrib: 5.7E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylene, m-

CAS Number:

000108-38-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.2E+03	µg/L	ECOTOX
Salt Ecol LC50:	2.9E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	3.2E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	8.5E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.2E+00	Torr	PHYSPROP
Henry's Law:	7.1E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.6E+02	mg/L	PHYSPROP
Distrib Coef:	5.7E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.2E+00		EPI_EXP
Water Solub:	1.6E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.7E+01	°C
Boiling Point:	1.3E+02	°C
Formula:	C8H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Xylene, m-

CAS Number: 000108-38-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.6E+02
Distrib: 5.7E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 500
Salt: 500

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylene, o-

CAS Number:

000095-47-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	5.2E+03	µg/L	ECOTOX
Salt Ecol LC50:	1.1E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	3.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:	8.7E-01	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.6E+00	Torr	PHYSPROP
Henry's Law:	5.1E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.7E+02	mg/L	PHYSPROP
Distrib Coef:	5.8E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+00		EPI_EXP
Water Solub:	1.7E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-2.5E+01	°C
Boiling Point:	1.4E+02	°C
Formula:	C8H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylene, o-

CAS Number:

000095-47-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.7E+02
Distrib: 5.8E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
 Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
 Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 0.4
Lake: 1

Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L

CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Xylenes

CAS Number:

001330-20-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-01	mg/kg/day	IRIS
Inhal RfD:	2.8E-02	mg/kg/day	IRIS
RfC	1.0E-01	mg/m^3	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.6E+03	µg/L	ECOTOX
Salt Ecol LC50:	7.4E+03	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:	9.1E+01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:	9.8E-01	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+01	days	HEDR
Radio:		days	
Log Kow:	3.1E+00		EPI_EXP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	No	
Organic:	Yes	
Gas:	Yes	
Particulate:	No	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	1.0E+02	
Density:		g/mL @ °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.9E+00	Torr	PHYSPROP
Henry's Law:	6.6E-03	atm-m3/mol	PHYSPROP
Water Solub:	1.0E+02	mg/L	PHYSPROP
Distrib Coef:	5.8E+01	ml/g	CALC
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+00		EPI_EXP
Water Solub:	1.0E+02		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:		°C
Boiling Point:	1.3E+02	°C
Formula:	C8H10	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Xylenes

CAS Number: 001330-20-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter Value
Toxicity: 100
Gas Mobility: 1
Gas Migration: 17

GROUND WATER PATHWAY

Parameter Value
Toxicity: 100
Water Solub: 1.0E+02
Distrib: 5.8E+01
Geo Mean Sol:
Mobility
Liquid Karst: 1.0E+00
Non Karst: 1.0E-02
Non Liq Karst: 1.0E+00
Non Karst: 1.0E-02

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1

HUMAN FOOD CHAIN

Parameter Value
Toxicity: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

ENVIRONMENTAL

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 0.4
Lake: 1
Bioaccumulation
Fresh: 50
Salt: 50

BENCHMARKS

AIR PATHWAY

Parameter Value Unit
NAAQS/
NESHAPS: µg/m3
Cancer Risk: mg/m3
Non Cancer Risk: 1E-01 mg/m3

GROUND WATER PATHWAY

Parameter Value Unit
MCL/
MCLG: 1E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

SOIL EXPOSURE PATHWAY

Parameter Value Unit
Cancer Risk: mg/kg
Non Cancer Risk: 1E+04 mg/kg

RADIONUCLIDE

Parameter Value Unit
MCL: pCi/L
UMTRCA: pCi/kg
CANCER RISK
Air: pCi/m3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter Value Unit
MCL/MCLG: 1E+01 mg/L
Cancer Risk: mg/L
Non Cancer Risk: 3E+00 mg/L

HUMAN FOOD CHAIN

Parameter Value Unit
FDAAL: ppm
Cancer Risk: mg/kg
Non Cancer Risk: 2E+02 mg/kg

ENVIRONMENTAL

Parameter Value Unit
ACUTE
Fresh CMC: µg/L
Salt CMC: µg/L
CHRONIC
Fresh CCC: µg/L
Salt CCC: µg/L

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Zinc

CAS Number:

007440-66-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-01	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:	D		IRIS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	1.2E+02	µg/L	NRWQC
Salt CMC:	9.0E+01	µg/L	NRWQC
CHRONIC			
Fresh CCC:	1.2E+02	µg/L	NRWQC
Salt CCC:	8.1E+01	µg/L	NRWQC
Fresh Ecol LC50:	2.0E+01	µg/L	ECOTOX
Salt Ecol LC50:	1.0E+01	µg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-4.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	No	
Rad. Element:	No	
Molecular Weight:	6.5E+01	
Density:	7.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.8E-09	Torr	PHYSPROP
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.2E+01	ml/g	SSG
Geo Mean Sol:	1.1E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.0E+02		ECOTOX
Salt BCF:	1.1E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+04		ECOTOX
Salt BCF:	1.7E+05		ECOTOX
Log Kow:	-4.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.1E+04	mg/L	CRC

OTHER DATA

Melting Point:	4.1E+02	°C
Boiling Point:	9.0E+02	°C
Formula:	Zn	

CLASS INFORMATION

Parent Substance

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Zinc

CAS Number: 007440-66-6

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Toxicity:	10				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.2E+01							
			Geo Mean Sol:	1.1E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>		<u>Parameter</u>	<u>Value</u>				
Toxicity:	10		Toxicity:	10		Fresh Tox:	10				
						Salt Tox:	100				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50000				
			Salt:	50000		Salt:	50000				

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:	2E+04	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	4E+00	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	1.2E+02	µg/L			
Non Cancer Risk:	4E+00	mg/L	Non Cancer Risk:	4E+02	mg/kg	Salt CMC:	9.0E+01	µg/L			
						CHRONIC					
						Fresh CCC:	1.2E+02	µg/L			
						Salt CCC:	8.1E+01	µg/L			

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date:

06/20/2014

Chemical: Zinc 65 (radionuclide)

CAS Number:

013982-39-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
RfC		mg/m^3	
Oral Slope:	Food: 1.5E-11	(pCi)^-1	OSRTI_PRG
	Soil: 2.4E-11	(pCi)^-1	OSRTI_PRG
	Water: 1.1E-11	(pCi)^-1	OSRTI_PRG
Oral Wt-of-Evid:	A		HRS
IUR:		(µg/m3)^-1	
IUR Wt-of-Evid:	A		HRS
Inhal Slope:	5.8E-12	(pCi)^-1	OSRTI_PRG
Extern. Exp Slope:	2.8E-06	(yr)^-1/pCi[(g)^-1]	
Lambda:	1.0E+00		OSRTI_PRG
Area Correct.:	8.4E-01	m^2	OSRTI_PRG
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+02	days	HEAST
RIVER- Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+02	days	HEAST
Log Kow:	-4.7E-01		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Metal Contain:	Yes	
Organic:	No	
Gas:	No	
Particulate:	Yes	
Radionuclide:	Yes	
Rad. Element:	No	
Molecular Weight:	6.5E+01	
Density:	7.1E+00	g/mL @ 25.0 °C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.8E-09	Torr	CRC
Henry's Law:	2.4E-02	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	6.2E+01	ml/g	SSG
Geo Mean Sol:	1.1E+04	mg/L	CRC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	6.0E+02		ECOTOX
Salt BCF:	1.1E+05		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	7.8E+04		ECOTOX
Salt BCF:	1.7E+05		ECOTOX
Log Kow:	-4.7E-01		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.1E+04	mg/L	CRC

OTHER DATA

Melting Point:	4.1E+02	°C
Boiling Point:	9.0E+02	°C
Formula:	Zn-65	

CLASS INFORMATION

Parent Substance

Zinc

SUPERFUND CHEMICAL DATA MATRIX

Last Modified Date: 01/30/2014

Publication Date: 06/20/2014

Chemical: Zinc 65 (radionuclide)

CAS Number: 013982-39-3

ASSIGNED FACTOR VALUES											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Toxicity:	1000				
Gas Mobility:			Water Solub:								
Gas Migration:			Distrib:	6.2E+01							
			Geo Mean Sol:	1.1E+04							
			Mobility								
			Liquid	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
			Non Liq	Karst:	1.0E+00						
				Non Karst:	1.0E-02						
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value		Parameter	Value		Parameter	Value				
Toxicity:	1000		Toxicity:	1000		Fresh Tox:	1000				
						Salt Tox:	1000				
Persistence			Persistence			Persistence					
River:	1		River:	1		River:	1				
Lake:	1		Lake:	1		Lake:	1				
			Bioaccumulation			Bioaccumulation					
			Fresh:	500		Fresh:	50000				
			Salt:	50000		Salt:	50000				
BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/ NESHAPS:		µg/m3	MCL/ MCLG:	3E+02	mg/L	Cancer Risk:		mg/kg	MCL:	3E+02	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	9.10E-01	pCi/m3
									DW:	4.52E+00	pCi/L
									FC:	1.14E+02	pCi/kg
									Soil Ing:	1.01E+06	pCi/kg
									Soil Gam:	1.32E+03	pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit			
MCL/MCLG:	3E+02	mg/L	FDAAL:		ppm	ACUTE					
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L			
						CHRONIC					
						Fresh CCC:		µg/L			
						Salt CCC:		µg/L			