

## EPA Region III Risk-Based Concentration Table

### Background Information



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### Development of Risk-Based Concentrations

#### General

Separate carcinogenic and non-carcinogenic risk-based concentrations were calculated for each compound for each pathway. The concentration in the table is the lower of the two, rounded to two significant figures. The following terms and values were used in the calculations:

Exposure variables	Value	Symbol
<i>General:</i>		
Carcinogenic potency slope oral (risk per mg/kg/d):	•	CPSo
Carcinogenic potency slope inhaled (risk per mg/kg/d):	•	CPSi
Reference dose oral (mg/kg/d):	•	RfDo
Reference dose inhaled (mg/kg/d):	•	RfDi
Target cancer risk:	1e-06	TR
Target hazard quotient:	1	THQ
Body weight, adult (kg):	70	BWa
Body weight, age 1-6 (kg):	15	BWc
Averaging time carcinogens (d):	25550	ATc
Averaging time non-carcinogens (d):	ED*365	ATn
Inhalation, adult (m <sup>3</sup> /d):	20	IRAa
Inhalation, child (m <sup>3</sup> /d):	12	IRAc
Inhalation factor, age-adjusted (m <sup>3</sup> -y/kg-d):	11.66	IFAadj
Tap water ingestion, adult (L/d):	2	IRWa
Tap water ingestion, age 1-6 (L/d):	1	IRWc
Tap water ingestion factor, age-adjusted (L-y/kg-d):	1.09	IFWadj
Fish ingestion (g/d):	54	IRF
Soil ingestion, adult (mg/d):	100	IRSa
Soil ingestion, age 1-6 (mg/d):	200	IRSc
Soil ingestion factor, age adjusted (mg-y/kg-d):	114.29	IFSadj
<i>Residential:</i>		
Exposure frequency (d/y):	350	EFr
Exposure duration, total (y):	30	EDtot
Exposure duration, age 1-6 (y):	6	EDc
Volatilization factor (L/m <sup>3</sup> ):	0.5	K



Exposure variables	Value	Symbol
<i>Occupational:</i>		
Exposure frequency (d/y):	250	EFo
Exposure duration (y):	25	EDo
Fraction of contaminated soil ingested (unitless)	0.5	FC

\*: Contaminant-specific toxicological constants. The priority among sources of toxicological constants was as follows: (1) IRIS, (2) HEAST, (3) HEAST alternative method, (4) EPA Superfund Health Risk Technical Support Center, (5) withdrawn from IRIS or HEAST, and (6) other EPA documents. Each source was used only if numbers from higher-priority sources were unavailable. The EPA Superfund Health Risk Technical Support Center, part of the Chemical Mixtures Branch of ECAO-Cincinnati, develops provisional RfDs and CPSEs on request for contaminants not in IRIS or HEAST. These provisional values are labeled "E = EPA-ECAO provisional" in the table. It is possible they may be obsolete. If one of the "E" constants is important to a Superfund risk assessment, consider requesting, through a Regional risk assessor, a new provisional value.

### Age-adjusted factors

Because contact rates with tap water, ambient air, and residential soil are different for children and adults, carcinogenic risks during the first 30 years of life were calculated using age-adjusted factors. These factors approximated the integrated exposure from birth until age 30 by combining contact rates, body weights, and exposure durations for two age groups - small children and adults. The age-adjusted factor for soil was obtained from RAGS IB; the others were developed by analogy.

#### Air inhalation

$$IFA_{adj} \frac{m^3 \cdot y}{kg \cdot d} = \frac{EDc \cdot IRAc}{BWc} + \frac{(ED_{tot} - EDc) \cdot IRAa}{BWa}$$

#### Tap water ingestion

$$IFW_{adj} \frac{L \cdot y}{kg \cdot d} = \frac{EDc \cdot IRWc}{BWc} + \frac{(ED_{tot} - EDc) \cdot IRWa}{BWa}$$

#### Soil ingestion

$$IFS_{adj} \frac{mg \cdot y}{kg \cdot d} = \frac{EDc \cdot IRSc}{BWc} + \frac{(ED_{tot} - EDc) \cdot IRSa}{BWa}$$

### Residential water

Volatilization terms were calculated only for compounds with a mark in the "VOC" column. Compounds having a Henry's Law constant greater than  $10^{-5}$  were considered volatile. The list may be incomplete, but is unlikely to include false positives. The equations and the volatilization factor (K, above) were obtained from RAGS IB. Oral potency slopes and reference doses were used for both oral and inhaled exposures for volatile compounds lacking inhalation values. Inhaled potency slopes were substituted for unavailable oral potency slopes only for volatile compounds; inhaled RfDs were substituted for unavailable

oral RfDs for both volatile and non-volatile compounds. RBCs for carcinogens were based on combined childhood and adult exposure; for non-carcinogens RBCs were based on adult exposure.

### Carcinogens

$$RBC \frac{\mu\text{g}}{\text{L}} = \frac{TR \cdot ATc \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{Efr \cdot ([K \cdot IFAadj \cdot CPSi] + [IFWadj \cdot CPSo])}$$

### Non-carcinogens

$$RBC \frac{\mu\text{g}}{\text{L}} = \frac{THQ \cdot BWa \cdot ATn \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{Efr \cdot EDtot \cdot \left( \frac{K \cdot IRAa}{RfDi} + \frac{IRWa}{RfDo} \right)}$$

### Ambient air

Oral potency slopes and references were used where inhalation values were not available. RBCs for carcinogens were based on combined childhood and adult exposure; for non-carcinogens RBCs were based on adult exposure.

### Carcinogens

$$RBC \frac{\mu\text{g}}{\text{m}^3} = \frac{TR \cdot ATc \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{Efr \cdot IFAadj \cdot CPSi}$$

### Non-carcinogens

$$RBC \frac{\mu\text{g}}{\text{m}^3} = \frac{THQ \cdot RfDi \cdot BWa \cdot ATn \cdot 1000 \frac{\mu\text{g}}{\text{mg}}}{Efr \cdot EDtot \cdot IRAa}$$

### Edible fish

All RBCs were based on adult exposure.

### Carcinogens

$$RBC \frac{\text{mg}}{\text{kg}} = \frac{TR \cdot BWa \cdot ATc}{Efr \cdot EDtot \cdot \frac{IRF}{1000 \frac{\text{g}}{\text{kg}}} \cdot CPSo}$$

### Non-carcinogens

$$RBC \frac{\text{mg}}{\text{kg}} = \frac{THQ \cdot RfDo \cdot BWa \cdot ATn}{Efr \cdot EDtot \cdot \frac{IRF}{1000 \frac{\text{g}}{\text{kg}}}}$$

**Commercial/Industrial soil ingestion**

RBCs were based on adult occupational exposure, including an assumption that only 50% of total soil ingestion is work-related.

**Carcinogens**

$$RBC \frac{mg}{kg} = \frac{TR \cdot BW_a \cdot ATc}{EF_o \cdot ED_o \cdot \frac{IRSa}{10^6 \frac{mg}{kg}} \cdot FC \cdot CPS_o}$$

**Non-carcinogens**

$$RBC \frac{mg}{kg} = \frac{THQ \cdot RfDo \cdot BW_a \cdot ATn}{EF_o \cdot ED_o \cdot \frac{IRSa}{10^6 \frac{mg}{kg}} \cdot FC}$$

**Residential soil ingestion**

RBCs for carcinogens were based on combined childhood and adult exposure; RBCs for non-carcinogens were based on childhood exposure only.

**Carcinogens**

$$RBC \frac{mg}{kg} = \frac{TR \cdot ATc}{EFr \cdot \frac{IFSadj}{10^6 \frac{mg}{kg}} \cdot CPS_o}$$

**Non-carcinogens**

$$RBC \frac{mg}{kg} = \frac{THQ \cdot RfDo \cdot BW_c \cdot ATn}{EFr \cdot ED_c \cdot \frac{IRSc}{10^6 \frac{mg}{kg}}}$$

**Development of Soil Screening Levels****General**

In December 1994 the EPA Office of Solid Waste and Emergency Response proposed Soil Screening Guidance (Document 9355.4-1, PB95-963530, EPA540/R-94/101, available through NTIS at 703-487-4650). This draft document provides (1) a framework in which soil screening levels are to be used, (2) a detailed methodology for calculating soil screening levels, and (3) soil screening levels for 107 substances.

Consistent with this new guidance, the risk-based concentration table now includes two columns of generic soil screening levels (SSLs). OSWER's 107 proposed soil screening levels have been added verbatim. In addition, the proposed SSL methodology has been used to calculate soil screening levels for more substances, which are also included in the

new table. The table clearly distinguishes the OSWER SSLs from the "unofficial" ones.

These SSLs provide reasonable maximum estimates of transfers of contaminants from soil to other media. One column contains soil concentrations protective of groundwater quality; the other contains soil concentrations protective of air quality. "Protective" is defined in the same terms as the risk-based concentrations for tap water and air -- that residential contact scenarios will yield a fixed upper bound risk of  $10^{-6}$  or a fixed hazard quotient of 1 (whichever occurs at the lower concentration).

*OSWER's SSLs should be used only within the framework proposed in the guidance document. The additional SSLs included in the RBC table are intended for the same uses (although they obviously carry less weight than the formally proposed numbers).*

The SSLs are based on the following assumptions:

Input variables	Value	Symbol*
Surface soil moisture content (g/g)	0.1	$W_s$
Vadose zone soil moisture content (kg/kg)	0.2	$W_v$
Surface soil bulk density (g/cm <sup>3</sup> )	1.5	$\rho_{bs}$
Vadose zone soil bulk density (kg/L)	1.5	$\rho_{bv}$
Surface soil particle density (g/cm <sup>3</sup> )	2.65	$\rho_{ps}$
Vadose zone soil particle density (g/cm <sup>3</sup> )	2.65	$\rho_{pv}$
Total surface soil porosity (L pore /L soil)	0.43	$N_s$
Total vadose zone soil porosity (L pore/L soil)	0.43	$N_v$
Air-filled surface soil porosity (L air/L soil)	0.28	$\theta_{sa}$
Water-filled surface soil porosity (L water/L soil)	0.15	$\theta_{sw}$
Air-filled vadose zone soil porosity (L air/L soil)	0.13	$\theta_{va}$
Water-filled vadose zone soil porosity (L water/L soil)	0.30	$\theta_{vw}$
Organic carbon fraction of surface soil (g/g)	0.006	FOC <sub>s</sub>
Organic carbon fraction of vadose zone soil (g/g)	0.002	FOC <sub>v</sub>
Dispersion factor for 0.5 acres (g/m <sup>2</sup> s per kg/m <sup>3</sup> )	35.1	Q/C
Particulate emission factor (m <sup>3</sup> /kg)	6.79e+08	PEF
Exposure interval (s)	9.50e+08	T
Dilution-attenuation factor (unitless)	10	DAF

\*: Symbols were adjusted, variables were rearranged, and derived and chemical-specific variables were omitted for simplicity and clarity. Presentation of the input variables in a single table using the same terms as in the OSWER SSL document would have been confusing. The terms used here are generally similar to OSWER's, and can easily be compared with the SSL guidance document.

With two exceptions described in the following section, SSL calculations were based on the same algorithms presented in the OSWER draft SSL guidance document. For details of the calculations (and for general background information on SSLs), I strongly recommend

consulting that document. The "unofficial" SSLs were developed under the following conditions:

### Soil Screening Levels for Inhalation

Inhaled reference doses and potency slopes were used if available. If inhalation values were not available, oral RfDs and potency slopes were substituted. SSLs were calculated only for substances for which aqueous solubility, Koc, Henry's Law constant, and diffusivity in air were available. SSLs were calculated only for substances for which a volatilization factor could be calculated. This was done because OSWER's large proposed particulate emission factor rendered it pointless to estimate SSLs for particulate emissions alone. The final calculated SSL shown in the RBC table is the smaller of the risk-based SSL and the soil saturation concentration. All calculated SSLs were rounded to 2 significant figures.

The OSWER risk algorithms for inhalation were revised in order to be consistent with the rest of the RBC table. Only calculated SSLs were affected by this; SSLs proposed by OSWER are presented verbatim. Calculated SSLs for inhalation of carcinogens were based on an integrated lifetime exposure rather than adult exposure. SSLs for inhalation of noncarcinogens were based on adult exposure for 350 days per year rather than 365 days per year. The following algorithms were used to calculate inhalation SSLs:

#### Carcinogens

$$SSL \frac{mg}{kg} = \frac{TR \cdot ATc}{Efr \cdot IFAadj \cdot \left( \frac{1}{VF} + \frac{1}{PEF} \right) \cdot CPSi}$$

#### Non-carcinogens

$$SSL \frac{mg}{kg} = \frac{THQ \cdot BWa \cdot ATn \cdot RfDi}{Efr \cdot EDtot \cdot IRAa \cdot \left( \frac{1}{VF} + \frac{1}{PEF} \right)}$$

### Soil Screening Levels for Groundwater Use

All algorithms were as proposed by OSWER. MCLs were used as target groundwater concentrations if available. If MCLs were unavailable the risk-based concentration in the "tap water" column of the RBC table was used as the target groundwater concentration. All SSLs for groundwater are based on a dilution-attenuation factor (DAF) of 10. Since these SSLs scale linearly with DAF, the SSLs for DAF=1 would be ten times lower. They were omitted to conserve space. All groundwater SSLs were rounded to 2 significant figures and capped at unity.

Sources: I=IRIS H=HEAST A=HEAST alternate W=Withdrawn from IRIS or HEAST E=EPA-ECAO Regional Support provisional values O=Other EPA documents.						Basis: C=carcinogenic effects N=noncarcinogenic effects E=EPA draft Soil Screening Level S=soil saturation concentration.							
Contaminant	CAS	Risk-Based Concentrations				V O C	Risk-Based Concentrations					Soil Screening Levels Transfers from Soil to:	
		RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg-d/mg	CPSi kg-d/mg		Tap Water µg/L	Ambient Air µg/m <sup>3</sup>	Fish mg/kg	Soil Ingestion		Air mg/kg	Groundwater mg/kg
										Industrial mg/kg	Residential mg/kg		
Acephate	30560191	4.00E-03		8.70E-03			7.7 c	0.72 c	0.36 c	660 c	73 c		
Acetaldehyde	75070		2.57E-03		7.70E-03		94 n	0.81 c					
Acetochlor	34256821	2.00E-02					730 n	73 n	27 n	41000 n	1600 n		
Acetone	67641	1.00E-01					3700 n	370 n	140 n	200000 n	7800 n	62000 e	8 e
Acetone cyanohydrin	75845	7.00E-02	4.00E-02				2600 n	150 n	95 n	140000 n	5500 n		
Acetonitrile	75078	6.00E-03	1.43E-02				220 n	52 n	8.1 n	12000 n	470 n		
Acetophenone	98462	1.00E-01	5.71E-06				0.042 n	0.021 n	140 n	200000 n	7800 n		
Acifluorfen	62476599	1.30E-02					470 n	47 n	18 n	27000 n	1000 n		
Acrolein	107028	2.00E-02	5.71E-06				730 n	0.021 n	27 n	41000 n	1600 n		
Acrylamide	70061	2.00E-04		4.50E+00	4.55E+00		0.015 c	0.0014 c	0.0007 c	1.3 c	0.14 c		
Acrylic acid	79107	5.00E-01	1.00E-03				18000 n	3.7 n	680 n	1E+06 n	39000 n		
Acrylonitrile	107131	1.00E-03	5.71E-04	5.40E-01	2.38E-01		0.12 c	0.026 c	0.0058 c	11 c	1.2 c		
Alachlor	15972606	1.00E-02		8.00E-02			0.84 c	0.078 c	0.039 c	72 c	8 c		
Alar	1596845	1.50E-01					5500 n	550 n	200 n	310000 n	12000 n		
Aldicarb	116063	1.00E-03					37 n	3.7 n	1.4 n	2000 n	78 n	570 n	0.036 n
Aldicarb sulfone	1646884	1.00E-03					37 n	3.7 n	1.4 n	2000 n	78 n		
Aldrin	309002	3.00E-05		1.70E+01	1.71E+01		0.004 c	0.00037 c	0.00019 c	0.34 c	0.038 c	0.5 e	0.005 e
Allyl	74223646	2.50E-01					9100 n	910 n	340 n	510000 n	20000 n		
Allyl alcohol	107186	5.00E-03					180 n	18 n	6.8 n	10000 n	390 n		
Allyl chloride	107051	5.00E-02	2.84E-04				1800 n	1 n	68 n	100000 n	3900 n		
Aluminum	7429905	1.00E+00					37000 n	3700 n	1400 n	1E+06 n	78000 n		
Aluminum phosphide	20859738	4.00E-04					15 n	1.5 n	0.54 n	820 n	31 n		
Amdro	67485294	3.00E-04					11 n	1.1 n	0.41 n	610 n	23 n		
Ametryn	834128	9.00E-03					330 n	33 n	12 n	18000 n	700 n		
m-Aminophenol	591275	7.00E-02					2600 n	260 n	95 n	140000 n	5500 n		
4-Aminopyridine	504245	2.00E-05					0.73 n	0.073 n	0.027 n	41 n	1.6 n		
Amitraz	33009611	2.50E-03					91 n	9.1 n	3.4 n	5100 n	200 n		
Ammonia	7664417		2.84E-02				1000 n	100 n					
Ammonium sulfate	7773060	2.00E-01					7300 n	730 n	270 n	410000 n	16000 n		
Aniline	62533		2.84E-04	5.70E-03			10 n	1 n	0.55 c	1000 c	110 c	45 n	0.031 n
Antimony and compounds	7440360	4.00E-04					15 n	1.5 n	0.54 n	820 n	31 n		
Antimony pentoxide	1314609	5.00E-04					18 n	1.8 n	0.68 n	1000 n	39 n		
Antimony potassium tartrate	304610	9.00E-04					33 n	3.3 n	1.2 n	1800 n	70 n		
Antimony tetroxide	1332316	4.00E-04					15 n	1.5 n	0.54 n	820 n	31 n		
Antimony trioxide	1309644	4.00E-04					15 n	1.5 n	0.54 n	820 n	31 n		
Apollo	74115245	1.30E-02					470 n	47 n	18 n	27000 n	1000 n		
Aramite	140578	5.00E-02		2.50E-02	2.49E-02		2.7 c	0.25 c	0.13 c	230 c	26 c		
Arsenic	7440382	3.00E-04					11 n	1.1 n	0.41 n	610 n	23 n	380 e	15 e
Arsenic (as carcinogen)	7440382			1.75E+00	1.51E+01		0.038 c	0.00041 c	0.0018 c	3.3 c	0.37 c	380 e	15 e
Arsine	7784421		1.43E-05				0.52 n	0.052 n					
Assure	76578148	9.00E-03					330 n	33 n	12 n	18000 n	700 n		

Sources: I=IRIS H=HEAST A=HEAST alternate W=Withdrawn from IRIS or HEAST E=EPA-ECAO Regional Support provisional value O=Other EPA documents.						Basis: C=carcinogenic effects N=noncarcinogenic effects E=EPA draft Soil Screening Level S=soil saturation concentration.							
Contaminant	CAS	Risk-Based Concentrations				V O C	Risk-Based Concentrations					Soil Screening Levels- Transfer from Soil to:	
		RfDo	RfDi	CPSo	CPSi		Tap Water	Ambient Air	Fish	Soil Ingestion		Air	Groundwater
		mg/kg/d	mg/kg/d	kg d/mg	kg d/mg		µg/L	µg/m <sup>3</sup>	mg/kg	Industrial	Residential	mg/kg	mg/kg
Atrazine	1912249	3.50E-02		2.22E-01			0.3	0.028	0.014	26	2.9		
Avermectin B1	65195553	4.00E-04					15	1.5	0.54	820	31		
Azobenzene	103333			1.10E-01	1.08E-01		0.61	0.058	0.029	52	5.8		
Barium and compounds	7440399	7.00E-02	1.43E-04				2600	0.52	95	140000	5500	350000	32
Baygon	114261	4.00E-03					150	15	5.4	8200	310		
Bayleton	43121433	3.00E-02					1100	110	41	61000	2300		
Baythroid	68359375	2.50E-02					910	91	34	51000	2000		
Benefin	1861401	3.00E-01					11000	1100	410	610000	23000		
Benomyl	17804332	5.00E-02					1800	180	68	100000	3900		
Bentazon	25857890	2.50E-03					91	9.1	3.4	5100	200		
Benzaldehyde	100527	1.00E-01					610	370	140	200000	7800		
Benzene	71432		1.71E-03	2.90E-02	2.90E-02		0.36	0.22	0.11	200	22	0.5	0.02
Benzenethiol	100985	1.00E-05					0.37	0.057	0.014	20	0.78		
Benzidine	92875	3.00E-03		2.30E+02	2.35E+02		0.00029	0.00003	0.00001	0.025	0.0028	1.3	1.100E-06
Benzoic acid	65850	4.00E+00					150000	15000	5400	1E+06	310000	320	280
Benzotrichloride	98077			1.30E+01			0.0052	0.00048	0.00024	0.44	0.049	0.012	0.000073
Benzyl alcohol	100516	3.00E-01					11000	1100	410	610000	23000		
Benzyl chloride	100447			1.70E-01			0.062	0.037	0.019	34	3.8	0.5	0.00036
Beryllium and compounds	7440417	5.00E-03		4.30E+00	8.40E+00		0.016	0.00075	0.00073	1.3	0.15	690	180
Bidrin	141662	1.00E-04					3.7	0.37	0.14	200	7.8		
Biphenyl (Talstar)	82657043	1.50E-02					550	55	20	31000	1200		
1,1-Biphenyl	92524	3.00E-02					1000	100	68	100000	3900	9000	110
Bis(2-chloroethyl)ether	111444			1.10E+00	1.16E+00		0.0092	0.0054	0.0029	5.2	0.58	0.3	0.0003
Bis(2-chloroisopropyl)ether	39638329	4.00E-02		7.00E-02	3.50E-02		0.26	0.18	0.045	82	9.1		
Bis(chloromethyl)ether	542881			2.20E+02	2.17E+02		0.00005	0.00003	0.00001	0.026	0.0029	0.00004	1.000E-07
Bis(2-chloro-1-methylethyl)ether				7.00E-02	7.00E-02		0.96	0.089	0.045	82	9.1		
Bis(2-ethylhexyl)phthalate (DEHP)	117817	2.00E-02		1.40E-02			4.8	0.45	0.23	410	46	210	11
Bisphenol A	80057	5.00E-02					1800	180	68	100000	3900		
Boron (and borates)	7440428	9.00E-02	5.71E-03				3300	21	120	180000	7000		
Boron trifluoride	7637072		2.00E-04				7.3	0.73					
Bromodichloromethane	75274	2.00E-02		6.20E-02			0.17	0.1	0.051	92	10	1800	0.3
Bromoethene	593602				1.10E-01		0.096	0.057					
Bromoform (tribromomethane)	75252	2.00E-02		7.90E-03	3.85E-03		2.4	1.6	0.4	720	81	46	0.5
Bromomethane	74839	1.40E-03	1.43E-03				8.7	5.2	1.9	2900	110	2	0.1
4-Bromophenyl phenyl ether	101553	5.80E-02					2100	210	78	120000	4500		
Bromophos	2104963	5.00E-03					180	18	6.8	10000	390		
Bromoxynil	1689845	2.00E-02					730	73	27	41000	1600		
Bromoxynil octanoate	1689992	2.00E-02					730	73	27	41000	1600		
1,3-Butadiene	106990				9.80E-01		0.011	0.0064				0.0013	0.000072
1-Butanol	71363	1.00E-01					3700	370	140	200000	7800	9700	8
Butyl benzyl phthalate	85687	2.00E-01					7300	730	270	410000	16000	530	65
Butylate	2008415	5.00E-02					1800	180	68	100000	3900		



Sources: I=IRIS H=HEAST A=HEAST alternate W=Withdrawn from IRIS or HEAST E=EPA-ECAO Regional Support provisional value O=Other EPA documents.						Basis: C=carcinogenic effects N=noncarcinogenic effects E=EPA draft Soil Screening Level S=soil saturation concentration.							
Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg d/mg	CPSi kg d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
							Tap Water µg/L	Ambient Air µg/m3	Fish mg/kg	Soil Ingestion		Air mg/kg	Groundwater mg/kg
										Industrial mg/kg	Residential mg/kg		
sec-Butylbenzene	135988	1.00E-02 E				☐	61 N	37 N	14 N	20000 N	780 N	80 S	0.27 M
tert-Butylbenzene	104518	1.00E-02 E				☐	61 N	37 N	14 N	20000 N	780 N		
Butylphthalyl butylglycolate	85701	1.00E+00 I					37000 N	3700 N	1400 N	1E+06 N	78000 N		
Cacodylic acid	75405	3.00E-03 H					110 N	11 N	4.1 N	6100 N	230 N		
Cadmium and compounds	7440439	5.00E-04 I			6.30E+00 I		18 N	0.00099 C	0.68 N	1000 N	39 N	920 E	6 E
Caprolactam	105602	5.00E-01 I					18000 N	1800 N	680 N	1E+06 N	39000 N		
Captafol	2425061	2.00E-03 I		8.60E-03 H			7.8 C	0.73 C	0.37 C	670 C	74 C		
Captan	133063	1.30E-01 I		3.50E-03 H			19 C	1.8 C	0.9 C	1600 C	180 C		
Carbaryl	63252	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N	0.34 S	23 M
Carbofuran	1563663	5.00E-03 I					180 N	18 N	6.8 N	10000 N	390 N		
Carbon disulfide	75150	1.00E-01 I	2.86E-03 H			☐	21 N	10 N	140 N	200000 N	7800 N	11 E	14 E
Carbon tetrachloride	56235	7.00E-04 I	5.71E-04 E	1.30E-01 I	5.25E-02 I	☐	0.16 C	0.12 C	0.024 C	44 C	4.9 C	0.2 E	0.03 E
Carbosulfan	55285148	1.00E-02 I					370 N	37 N	14 N	20000 N	780 N		
Carboxin	5234684	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
Chloral	75876	2.00E-03 I					73 N	7.3 N	2.7 N	4100 N	160 N		
Chloramben	133904	1.50E-02 I					550 N	55 N	20 N	31000 N	1200 N		
Chloranil	118752			4.03E-01 H			0.17 C	0.016 C	0.0078 C	14 C	1.6 C		
Chlordane	57749	6.00E-05 I		1.30E+00 I	1.29E+00 I		0.052 C	0.0049 C	0.0024 C	4.4 C	0.49 C	10 E	2 E
Chlorimuron-ethyl	90982324	2.00E-02 I					730 N	73 N	27 N	41000 N	1600 N		
Chlorine	7782505	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
Chlorine dioxide	10049044		5.71E-05 I				2.1 N	0.21 N					
Chloroacetaldehyde	107290	6.90E-03 O					250 N	25 N	9.3 N	14000 N	540 N		
Chloroacetic acid	79118	2.00E-03 H					73 N	7.3 N	2.7 N	4100 N	160 N		
2-Chloroacetophenone	532274		8.57E-06 I				0.31 N	0.031 N					
4-Chloroaniline	106478	4.00E-03 I					150 N	15 N	5.4 N	8200 N	310 N	1200 S	0.3 E
Chlorobenzene	108907	2.00E-02 I	5.71E-03 A			☐	39 N	21 N	27 N	41000 N	1600 N	94 E	0.6 E
Chlorobenzilate	510156	2.00E-02 I		2.70E-01 H	2.70E-01 H		0.25 C	0.023 C	0.012 C	21 C	2.4 C		
p-Chlorobenzoic acid	74113	2.00E-01 H					7300 N	730 N	270 N	410000 N	16000 N		
4-Chlorobenzotrifluoride	98366	2.00E-02 H					730 N	73 N	27 N	41000 N	1600 N	86 N	7.5 M
2-Chloro-1,3-butadiene	126998	2.00E-02 A	2.00E-03 H			☐	14 N	7.3 N	27 N	41000 N	1600 N		
1-Chlorobutane	109693	4.00E-01 H				☐	2400 N	1500 N	540 N	820000 N	31000 N		
Chlorodibromomethane	124481	2.00E-02 I		8.40E-02 I		☐	0.13 C	0.075 C	0.038 C	68 C	7.6 C	1900 E	0.2 E
Chlorodifluoromethane	75456		1.43E+01 I			☐	87000 N	52000 N					
Chloroethane	75003	4.00E-01 E	2.86E+00 I			☐	8600 N	10000 N	540 N	820000 N	31000 N	2600 S	33 M
2-Chloroethyl vinyl ether	110758	2.50E-02 O				☐	150 N	91 N	34 N	51000 N	2000 N		
Chloroform	67663	1.00E-02 I		6.10E-03 I	8.05E-02 I	☐	0.15 C	0.078 C	0.52 C	940 C	100 C	0.2 E	0.3 E
Chloromethane	74873			1.30E-02 H	6.30E-03 H	☐	1.4 C	0.99 C	0.24 C	440 C	49 C	0.063 C	0.0066 C
4-Chloro-2,2-methylaniline hydrochloride	3165933			4.60E-01 H			0.15 C	0.014 C	0.0069 C	12 C	1.4 C		
4-Chloro-2-methylaniline	95692			5.80E-01 H			0.12 C	0.011 C	0.0054 C	9.9 C	1.1 C		
beta-Chloronaphthalene	91587	8.00E-02 I					2900 N	290 N	110 N	160000 N	6300 N	2.8 S	140 M
o-Chloronitrobenzene	88733			2.50E-02 H		☐	0.42 C	0.25 C	0.13 C	230 C	26 C		
p-Chloronitrobenzene	100005			1.80E-02 H		☐	0.59 C	0.35 C	0.18 C	320 C	35 C		

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg-d/mg	CPSi kg-d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels	
							Tap Water µg/L	Ambient Air µg/m <sup>3</sup>	Fish mg/kg	Soil Ingestion		Transfers from Soil to:	
										Industrial mg/kg	Residential mg/kg	Air mg/kg	Groundwater mg/kg
2-Chlorophenol	95578	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N	53000 E	2 E
2-Chloropropane	75296		2.86E-02 H				170 N	100 N				22 N	0.64 N
Chlorothalonil	1097456	1.50E-02		1.10E-02 H			6.1 C	0.57 C	0.29 C	520 C	58 C		
o-Chlorotoluene	95498	2.00E-02					120 N	73 N	27 N	41000 N	1600 N	1200 N	5.6 N
Chlorpropham	101213	2.00E-01					7300 N	730 N	270 N	410000 N	16000 N		
Chlorpyrifos	2921882	3.00E-03					110 N	11 N	4.1 N	6100 N	230 N		
Chlorpyrifos-methyl	5598130	1.00E-02 H					370 N	37 N	14 N	20000 N	780 N		
Chlorsulfuron	64902723	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Chlorthiophos	60238564	8.00E-04 H					29 N	2.9 N	1.1 N	1600 N	63 N		
Chromium III and compounds	16065831	1.00E+00	5.71E-07 W				37000 N	0.0021 N	1400 N	1E+06 N	78000 N		
Chromium VI and compounds	7440473	5.00E-03			4.20E+01		180 N	0.00015 C	6.8 N	10000 N	390 N	140 E	19 E
Coal tar	8001589				2.20E+00 W				0.0028 C				
Cobalt	7440484	6.00E-02 E					2200 N	220 N	81 N	120000 N	4700 N		
Coke Oven Emissions	8007452				2.17E+00			0.0029 C					
Copper and compounds	7440508	3.71E-02 H					1400 N	140 N	50 N	76000 N	2900 N		
Crotonaldehyde	123739	1.00E-02 W		1.90E+00 H	1.90E+00 W		0.035 C	0.0033 C	0.0017 C	3 C	0.34 C		
Cumene	98828	4.00E-02	2.57E-03 H				1500 N	9.4 N	54 N	82000 N	3100 N	81 N	65 N
Cyanides:													
Barium cyanide	542621	1.00E-01 W					3700 N	370 N	140 N	200000 N	7800 N		
Calcium cyanide	592018	4.00E-02					1500 N	150 N	54 N	82000 N	3100 N		
Copper cyanide	544923	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N		
Cyanazine	21725462	2.00E-03 H		8.40E-01 H			0.08 C	0.0075 C	0.0038 C	6.8 C	0.76 C		
Cyanogen	460195	4.00E-02					1500 N	150 N	54 N	82000 N	3100 N		
Cyanogen bromide	506683	9.00E-02					3300 N	330 N	120 N	180000 N	7000 N		
Cyanogen chloride	506774	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Free cyanide	57125	2.00E-02					730 N	73 N	27 N	41000 N	1600 N		
Hydrogen cyanide	74908	2.00E-02	8.57E-04				730 N	3.1 N	27 N	41000 N	1600 N		
Potassium cyanide	151508	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Potassium silver cyanide	506616	2.00E-01					7300 N	730 N	270 N	410000 N	16000 N		
Silver cyanide	506649	1.00E-01					3700 N	370 N	140 N	200000 N	7800 N		
Sodium cyanide	143339	4.00E-02					1500 N	150 N	54 N	82000 N	3100 N		
Zinc cyanide	557211	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Cyclohexanone	108941	5.00E+00					30000 N	18000 N	6800 N	1E+06 N	390000 N		
Cyclohexamine	108918	2.00E-01					7300 N	730 N	270 N	410000 N	16000 N		
Cyhalothrin/Karate	68085858	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N		
Cypermethrin	52315078	1.00E-02					370 N	37 N	14 N	20000 N	780 N		
Cyromazine	66215278	7.50E-03					270 N	27 N	10 N	15000 N	590 N		
Dacthal	1861321	1.00E-02					370 N	37 N	14 N	20000 N	780 N		
Dalapon	75990	3.00E-02					1100 N	110 N	41 N	61000 N	2300 N		
Danitol	39515418	2.50E-0 <sup>2</sup>					910	91 N	34 N	51000 N	2000 N		
DDD	72548			2.40E-01			0.28 C	0.026 C	0.013 C	24 C	2.7 C	37 E	0.3 E
DDE	72559			3.40E-01			0.2 C	0.018 C	0.0093 C	17 C	1.8 C		

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Contaminant	CAS	Risk-Based Concentrations				Soil Screening Levels		Soil Screening Levels		Soil Screening Levels		
		RfDo	RfDi	CPSo	CPSi	Transfer from Soil to:	Air	Groundwater	Air	Groundwater		
		mg/kg/d	mg/kg/d	kg-d/mg	kg-d/mg	mg/L	µg/m <sup>3</sup>	mg/kg	mg/kg	mg/kg	mg/kg	
DDT	50293	5.00E-04		3.40E-01	3.40E-01	0.2 c	0.018 c	0.0093 c	17 c	1.9 c	80 e	1 e
Decabromodiphenyl ether	1163195	1.00E-02				61 n	37 n	14 n	20000 n	780 n		
Demeton	8065483	4.00E-05				1.5 n	0.15 n	0.054 n	82 n	3.1 n		
Diallate	3303164			6.10E-02		0.17 c	0.1 c	0.052 c	94 c	10 c		
Diazinon	333415	9.00E-04				33 n	3.3 n	1.2 n	1800 n	70 n	5400 b	2.8 n
Dibenzofuran	132649	4.00E-03				150 n	15 n	5.4 n	8200 n	310 n	120 b	120 n
1,4-Dibromobenzene	106376	1.00E-02				61 n	37 n	14 n	20000 n	780 n		
1,2-Dibromo-3-chloropropane	96128		5.71E-05	1.40E+00	2.42E-03	0.048 c	0.21 n	0.0023 c	4.1 c	0.46 c	1.9 n	0.00061 n
1,2-Dibromoethane	106934		5.71E-05	8.50E+01	7.70E-01	0.00075 c	0.0081 c	0.00004 c	0.067 c	0.0075 c	0.0058 c	0.00018 n
Dibutyl phthalate	84742	1.00E-01				3700 n	370 n	140 n	20000 n	7800 n	100 e	120 e
Dicamba	1918009	3.00E-02				1100 n	110 n	41 n	61000 n	2300 n		
1,2-Dichlorobenzene	95501	9.00E-02	4.00E-02			270 n	150 n	120 n	180000 n	7000 n	300 e	6 e
1,3-Dichlorobenzene	541731	8.90E-02				540 n	320 n	120 n	180000 n	7000 n		
1,4-Dichlorobenzene	106467		2.29E-01	2.40E-02		0.44 c	0.26 c	0.13 c	240 c	27 c	7700 e	1 e
3,3'-Dichlorobenzidine	91941			4.50E-01		0.15 c	0.014 c	0.007 c	13 c	1.4 c	52 b	0.01 e
1,4-Dichloro-2-butene	764410				9.30E+00	0.0011 c	0.00067 c					
Dichlorodifluoromethane	75718	2.00E-01	5.71E-02			390 n	210 n	270 n	410000 n	16000 n	37 n	7.5 n
1,1-Dichloroethane	75343	1.00E-01	1.43E-01			810 n	520 n	140 n	200000 n	7800 n	980 e	11 e
1,2-Dichloroethane (EDC)	107062		2.84E-03	9.10E-02	9.10E-02	0.12 c	0.069 c	0.035 c	63 c	7 c	0.3 e	0.01 e
1,1-Dichloroethylene	75354	9.00E-03		6.00E-01	1.75E-01	0.044 c	0.036 c	0.0053 c	9.5 c	1.1 c	0.04 e	0.03 e
1,2-Dichloroethylene (cis)	156592	1.00E-02				61 n	37 n	14 n	20000 n	780 n	1500 e	0.2 e
1,2-Dichloroethylene (trans)	156605	2.00E-02				120 n	73 n	27 n	41000 n	1600 n	3600 e	0.3 e
1,2-Dichloroethylene (mixture)	540590	9.00E-03				55 n	33 n	12 n	18000 n	700 n		
2,4-Dichlorophenol	120832	3.00E-03				110 n	11 n	4.1 n	6100 n	230 n	4800 b	0.5 e
2,4-Dichlorophenoxyacetic Acid (2,4-D)	94757	1.00E-02				61 n	37 n	14 n	20000 n	780 n	7000 b	1.7 n
4-(2,4-Dichlorophenoxy)butyric Acid	94826	8.00E-03				290 n	29 n	11 n	16000 n	630 n		
1,2-Dichloropropane	78875		1.14E-03	6.80E-02		0.16 c	0.092 c	0.046 c	84 c	9.4 c	11 e	0.02 e
2,3-Dichloropropanol	616239	3.00E-03				110 n	11 n	4.1 n	6100 n	230 n		
1,3-Dichloropropene	542756	3.00E-04	5.71E-03	1.75E-01	1.30E-01	0.077 c	0.048 c	0.018 c	33 c	3.7 c	0.1 e	0.001 e
Dichlorvos	62737	5.00E-04	1.43E-04	2.90E-01		0.23 c	0.022 c	0.011 c	20 c	2.2 c	3.5 c	0.00072 c
Dicofol	115322			4.40E-01		0.15 c	0.014 c	0.0072 c	13 c	1.5 c		
Dicyclopentadiene	77736	3.00E-02	5.71E-05			0.42 n	0.21 n	41 n	61000 n	2300 n		
Dieldrin	60571	5.00E-05		1.60E+01	1.61E+01	0.0042 c	0.00039 c	0.0002 c	0.36 c	0.04 c	2 e	0.001 e
Diesel emissions			1.43E-03			52 n	5.2 n					
Diethyl phthalate	84662	8.00E-01				29000 n	2900 n	1100 n	1E+06 n	63000 n	520 e	110 e
Diethylene glycol, monobutyl ether	112345		5.71E-03			210 n	21 n					
Diethylene glycol, monoethyl ether	111900	2.00E+00				73000 n	7300 n	2700 n	1E+06 n	160000 n		
Diethylformamide	617845	1.10E-02				400 n	40 n	15 n	22000 n	860 n		
Di(2-ethylhexyl)adipate	103231	6.00E-01		1.20E-03		56 c	5.2 c	2.6 c	4800 c	530 c		
Diethylstilbestrol	56531			4.70E+03		0.00001 c	1E-06 c	7E-07 c	0.0012 c	0.00014 c		
Difenoquat (Avenge)	43222486	8.00E-02				2900 n	290 n	110 n	160000 n	6300 n		
Diflubenzuron	35367385	2.00E-02				730 n	73 n	27 n	41000 n	1600 n		

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Contaminant	CAS	Risk-Based Concentrations				V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:		
		RfDo	RfDi	CPSo	CPSi		Tap Water	Ambient Air	Fish	Soil Ingestion		Air	Groundwater	
		mg/kg/d	mg/kg/d	kg d/mg	kg d/mg		µg/L	µg/m3	mg/kg	Industrial	Residential	mg/kg	mg/kg	
1,1-Difluoroethane	75376		1.14E+01				69000 N	42000 N						
Diisopropyl methylphosphonate (DIMP)	1445756	8.00E-02					2900 N	290 N	110 N	160000 N	6300 N			
Dimethipin	55290647	2.00E-02					730 N	73 N	27 N	41000 N	1600 N			
Dimethoate	60515	2.00E-04					7.3 N	0.73 N	0.27 N	410 N	16 N			
3,3'-Dimethoxybenzidine	119904			1.40E-02 H			4.8 C	0.45 C	0.23 C	410 C	46 C			
Dimethylamine	124403		5.71E-06 W				0.21 N	0.021 N						
2,4-Dimethylaniline hydrochloride	21436964			5.80E-01 H			0.12 C	0.011 C	0.0054 C	9.9 C	1.1 C			
2,4-Dimethylaniline	95481			7.50E-01 H			0.09 C	0.0083 C	0.0042 C	7.6 C	0.85 C			
N-N-Dimethylaniline	121697	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N			
3,3'-Dimethylbenzidine	119937			9.20E+00 H			0.0073 C	0.00068 C	0.00034 C	0.62 C	0.069 C	29 C	0.00039 C	
N,N-Dimethylformamide	68122	1.00E-01 H	8.57E-03				3700 N	31 N	140 N	200000 N	7800 N			
1,1-Dimethylhydrazine	57147			2.60E+00 W	3.50E+00 W		0.026 C	0.0018 C	0.0012 C	2.2 C	0.25 C			
1,2-Dimethylhydrazine	540738			3.70E+01 W	3.70E+01 W		0.0018 C	0.00017 C	0.00009 C	0.15 C	0.017 C			
2,4-Dimethylphenol	105679	2.00E-02					730 N	73 N	27 N	41000 N	1600 N	5400 S	3 E	
2,6-Dimethylphenol	576261	6.00E-04					22 N	2.2 N	0.81 N	1200 N	47 N			
3,4-Dimethylphenol	95658	1.00E-03					37 N	3.7 N	1.4 N	2000 N	78 N			
Dimethyl phthalate	131113	1.00E+01 H					370000 N	37000 N	14000 N	1E+06 N	780000 N	1600 E	1200 E	
Dimethyl terephthalate	120616	1.00E-01					3700 N	370 N	140 N	200000 N	7800 N			
1,2-Dinitrobenzene	528290	4.00E-04 H					15 N	1.5 N	0.54 N	820 N	31 N			
1,3-Dinitrobenzene	99650	1.00E-04					3.7 N	0.37 N	0.14 N	200 N	7.8 N			
1,4-Dinitrobenzene	100254	4.00E-04 H					15 N	1.5 N	0.54 N	820 N	31 N			
4,6-Dinitro-o-cyclohexyl phenol	131895	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N			
2,4-Dinitrophenol	51285	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N	360 N	0.1 E	
Dinitrotoluene mixture				6.80E-01			0.099 C	0.0092 C	0.0046 C	8.4 C	0.94 C			
2,4-Dinitrotoluene	121142	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N	120 S	0.2 E	
2,6-Dinitrotoluene	606282	1.00E-03 H					37 N	3.7 N	1.4 N	2000 N	78 N	370 S	0.1 E	
Dinoseb	88857	1.00E-03					37 N	3.7 N	1.4 N	2000 N	78 N			
di-n-Octyl phthalate	117840	2.00E-02 H					730 N	73 N	27 N	41000 N	1600 N	1000000 S	1000000 E	
1,4-Dioxane	123911			1.10E-02			6.1 C	0.57 C	0.29 C	520 C	58 C			
Diphenamid	957517	3.00E-02					1100 N	110 N	41 N	61000 N	2300 N			
Diphenylamine	122394	2.50E-02					910 N	91 N	34 N	51000 N	2000 N			
1,2-Diphenylhydrazine	122667			8.00E-01	7.70E-01		0.084 C	0.0081 C	0.0039 C	7.2 C	0.8 C			
Diquat	85007	2.20E-03					80 N	8 N	3 N	4500 N	170 N			
Direct black 38	1937377			8.60E+00 H			0.0078 C	0.00073 C	0.00037 C	0.67 C	0.074 C			
Direct blue 6	2682462			8.10E+00 H			0.0083 C	0.00077 C	0.00039 C	0.71 C	0.079 C			
Direct brown 95	16071866			9.30E+00 H			0.0072 C	0.00067 C	0.00034 C	0.62 C	0.069 C			
Disulfoton	298044	4.00E-05					1.5 N	0.15 N	0.054 N	82 N	3.1 N			
1,4-Dithiane	505293	1.00E-02					370 N	37 N	14 N	20000 N	780 N			
Diuron	330541	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N			
Dodine	2439103	4.00E-03					150 N	15 N	5.4 N	8200 N	310 N			
Endosulfan	115297	6.00E-03					220 N	22 N	8.1 N	12000 N	470 N	1 S	3 E	
Endothall	145733	2.00E-02					730 N	73 N	27 N	41000 N	1600 N			

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg-d/mg	CPSI kg-d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
							Tap Water µg/L	Ambient Air µg/m3	Fish mg/kg	Soil Ingestion		Air mg/kg	Groundwater mg/kg
										Industrial mg/kg	Residential mg/kg		
Endrin	72208	3.00E-04					11 N	1.1 N	0.41 N	610 N	23 N	16 S	0.4 E
Epichlorohydrin	106898	2.00E-03 H	2.86E-04	9.90E-03	4.20E-03		6.8 C	1 N	0.32 C	580 C	65 C		
1,2-Epoxybutane	106887		5.71E-03				210 N	21 N					
Ethephon (2-chloroethyl phosphonic acid)	1467370	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N		
Ethion	343122	5.00E-04					18 N	1.8 N	0.68 N	1000 N	39 N		
2-Ethoxyethanol acetate	111159	3.00E-01 A					11000 N	1100 N	410 N	610000 N	23000 N		
2-Ethoxyethanol	110805	4.00E-01 H	5.71E-02				15000 N	210 N	540 N	820000 N	31000 N		
Ethyl acrylate	140885			4.80E-02 H			1.4 C	0.13 C	0.066 C	120 C	13 C		
EPTC (S-Ethyl dipropylthiocarbamate)	759944	2.50E-02					910 N	91 N	34 N	51000 N	2000 N		
Ethyl ether	60297	2.00E-01				O	1200 N	730 N	270 N	410000 N	16000 N		
Ethyl methacrylate	97632	9.00E-02 H					3300 N	330 N	120 N	180000 N	7000 N		
Ethyl acetate	141786	9.00E-01					33000 N	3300 N	1200 N	1E+06 N	70000 N		
Ethylbenzene	100414	1.00E-01	2.86E-01			O	1300 N	1000 N	140 N	200000 N	7800 N	260 E	5 E
Ethylene cyanohydrin	109784	3.00E-01 H					11000 N	1100 N	410 N	610000 N	23000 N		
Ethylene diamine	107153	2.00E-02 H					730 N	73 N	27 N	41000 N	1600 N		
Ethylene glycol	107211	2.00E+00					73000 N	7300 N	2700 N	1E+06 N	160000 N		
Ethylene glycol, monobutyl ether	111762		5.71E-03 H				210 N	21 N					
Ethylene oxide	75218			1.02E+00 H	3.50E-01 H		0.066 C	0.018 C	0.0031 C	5.6 C	0.63 C		
Ethylene thiourea (ETU)	96457	8.00E-05		1.19E-01 H			0.57 C	0.053 C	0.027 C	48 C	5.4 C		
Ethyl p-nitrophenyl phenylphosphorothioate	2104645	1.00E-05					0.37 N	0.037 N	0.014 N	20 N	0.78 N		
Ethyl nitrosourea	759739			1.40E+02 W			0.00048 C	0.00005 C	0.00002 C	0.041 C	0.0046 C		
Ethylphthalyl ethyl glycolate	84720	3.00E+00					110000 N	11000 N	4100 N	1E+06 N	230000 N		
Express	10120	8.00E-03					290 N	29 N	11 N	16000 N	630 N		
Fenamiphos	22224926	2.50E-04					9.1 N	0.91 N	0.34 N	510 N	20 N		
Fluometuron	2164172	1.30E-02					470 N	47 N	18 N	27000 N	1000 N		
Fluoride	7782414	6.00E-02					2200 N	220 N	81 N	120000 N	4700 N		
Fluoridone	59756604	8.00E-02					2900 N	290 N	110 N	160000 N	6300 N		
Flurprimidol	56425913	2.00E-02					730 N	73 N	27 N	41000 N	1600 N		
Flutolanil	66332965	6.00E-02					2200 N	220 N	81 N	120000 N	4700 N		
Fluvalinate	69409945	1.00E-02					370 N	37 N	14 N	20000 N	780 N		
Folpet	133073	1.00E-01		3.50E-03			19 C	1.8 C	0.9 C	1600 C	180 C		
Fomesafen	72178020			1.90E-01			0.35 C	0.033 C	0.017 C	30 C	3.4 C		
Fonofos	944229	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N		
Formaldehyde	50000	2.00E-01			4.55E-02		7300 N	0.14 C	270 N	410000 N	16000 N		
Formic Acid	64186	2.00E+00 H					73000 N	7300 N	2700 N	1E+06 N	160000 N		
Fosetyl-al	39148248	3.00E+00					110000 N	11000 N	4100 N	1E+06 N	230000 N		
Furan	110009	1.00E-03					37 N	3.7 N	1.4 N	2000 N	78 N		
Furazolidone	67458			3.80E+00 H			0.018 C	0.0016 C	0.00083 C	1.5 C	0.17 C		
Furfural	98011	3.00E-03	1.43E-02 A				110 N	52 N	4.1 N	6100 N	230 N		
Furium	531828			5.00E+01 H			0.0013 C	0.00013 C	0.00006 C	0.11 C	0.013 C		
Furmecyclox	60568050			3.00E-02			2.2 C	0.21 C	0.11 C	190 C	21 C		



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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg d/mg	CPSi kg d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
							Tap Water µg/L	Ambient Air µg/m3	Fish mg/kg	Soil Ingestion		Air mg/kg	Groundwater mg/kg
										Industrial mg/kg	Residential mg/kg		
Mancozeb	8018017	3.00E-02 N					1100 N	110 N	41 N	61000 N	2300 N		
Maneb	12427382	5.00E-03 I					180 N	18 N	6.8 N	10000 N	390 N		
Manganese and compounds	7439965	5.00E-03 I	1.43e-05 I				180 N	0.052 N	6.8 N	10000 N	390 N		
Mephosfolan	950107	9.00E-05 N					3.3 N	0.33 N	0.12 N	180 N	7 N		
Mepiquat chloride	24307264	3.00E-02 I					1100 N	110 N	41 N	61000 N	2300 N		
Mercury (inorganic)	7439976	3.00E-04 N	8.57E-05 N				11 N	0.31 N	0.41 N	610 N	23 N	7 E	3 E
Mercury (methyl)	22967926	3.00E-04 I					11 N	1.1 N	0.41 N	610 N	23 N		
Merphos	150505	3.00E-05 I					1.1 N	0.11 N	0.041 N	61 N	2.3 N		
Merphos oxide	78488	3.00E-05 I					1.1 N	0.11 N	0.041 N	61 N	2.3 N		
Metalaxyl	57837191	6.00E-02 I					2200 N	220 N	81 N	120000 N	4700 N		
Methacrylonitrile	126987	1.00E-04 I	2.00E-04 A				3.7 N	0.73 N	0.14 N	200 N	7.8 N		
Methamidophos	10265926	5.00E-05 I					1.8 N	0.18 N	0.068 N	100 N	3.9 N		
Methanol	67561	5.00E-01 I					18000 N	1800 N	680 N	1E+06 N	39000 N		
Methidathion	950378	1.00E-03 I					37 N	3.7 N	1.4 N	2000 N	78 N		
Methomyl	16752775	2.50E-02 I					910 N	91 N	34 N	51000 N	2000 N		
Methoxychlor	72435	5.00E-03 I					180 N	18 N	6.8 N	10000 N	390 N	41 S	62 E
2-Methoxyethanol acetate	110496	2.00E-03 A					73 N	7.3 N	2.7 N	4100 N	160 N		
2-Methoxyethanol	109864	1.00E-03 N	5.71E-03 I				37 N	21 N	1.4 N	2000 N	78 N		
2-Methoxy-5-nitroaniline	99592			4.60E-02 N			1.5 C	0.14 C	0.069 C	120 C	14 C		
Methyl acetate	79209	1.00E+00 N					37000 N	3700 N	1400 N	1E+06 N	78000 N		
Methyl acrylate	96333	3.00E-02 A					1100 N	110 N	41 N	61000 N	2300 N		
2-Methylaniline hydrochloride	636215			1.80E-01 N			0.37 C	0.035 C	0.018 C	32 C	3.5 C		
2-Methylaniline	95534			2.40E-01 N			0.28 C	0.026 C	0.013 C	24 C	2.7 C		
Methyl chlorocarbonate	79221	1.00E+00 W					37000 N	3700 N	1400 N	1E+06 N	78000 N		
4-(2-Methyl-4-chlorophenoxy) butyric acid	94813	1.00E-02 I					370 N	37 N	14 N	20000 N	780 N		
2-Methyl-4-chlorophenoxyacetic acid	94746	5.00E-04 I					18 N	1.8 N	0.68 N	1000 N	39 N		
2-(2-Methyl-14-chlorophenoxy)propionic aci	93452	1.00E-03 I					37 N	3.7 N	1.4 N	2000 N	78 N		
Methylcyclohexane	100872		8.57E-01 N				31000 N	3100 N				60 S	1500 N
Methylene bromide	74953	1.00E-02 A					61 N	37 N	14 N	20000 N	780 N		
Methylene chloride	75092	6.00E-02 I	8.57E-01 N	7.50E-03 I	1.64E-03 I		4.1 C	3.8 C	0.42 C	760 C	85 C	7 E	0.01 E
4,4'-Methylene bis(2-chloroaniline)	101144	7.00E-04 N		1.30E-01 N	1.30E-01 N		0.52 C	0.048 C	0.024 C	44 C	4.9 C		
4,4'-Methylenebisbenzencamine	101779			2.50E-01 W			0.27 C	0.025 C	0.013 C	23 C	2.6 C		
4,4'-Methylene bis(N,N-dimethyl)aniline	101611			4.60E-02 I			1.5 C	0.14 C	0.069 C	120 C	14 C		
4,4'-Methylenediphenyl isocyanate	101688		5.71E-06 I				0.035 N	0.021 N					
Methyl ethyl ketone	78933	6.00E-01 I	2.86E-01 I				1900 N	1000 N	810 N	1E+06 N	47000 N		
Methyl hydrazine	60344			1.10E+00 W			0.061 C	0.0057 C	0.0029 C	5.2 C	0.58 C		
Methyl isobutyl ketone	108101	8.00E-02 N	2.29E-02 A				2900 N	84 N	110 N	160000 N	6300 N		
Methyl methacrylate	80626	8.00E-02 N					2900 N	290 N	110 N	160000 N	6300 N		
2-Methyl-5-nitroaniline	99558			3.30E-02 N			2 C	0.19 C	0.096 C	170 C	19 C		
Methyl parathion	298000	2.50E-04 I					9.1 N	0.91 N	0.34 N	510 N	20 N	28 S	0.041 N
2-Methylphenol (o-cresol)	95487	5.00E-02 I					1800 N	180 N	68 N	100000 N	3900 N	12000 S	6 E

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Contaminant	CAS	Risk-Based Concentrations				V O C	Risk-Based Concentrations					Soil Screening Levels	
		RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg-d/mg	CPSi kg-d/mg		Tap Water µg/L	Ambient Air µg/m3	Fish mg/kg	Soil Ingestion		Transfers from Soil to:	
										Industrial mg/kg	Residential mg/kg	Air mg/kg	Groundwater mg/kg
4-Methylphenol (p-cresol)	106445	5.00E-03 H					180 N	18 N	6.8 N	10000 N	390 N		
Methyl styrene (mixture)	25013154	6.00E-03 A	1.14E-02 A				60 N	42 N	8.1 N	12000 N	470 N		
Methyl styrene (alpha)	98839	7.00E-02 A					430 N	260 N	95 N	140000 N	5500 N	8.8 E	7.5 N
Methyl tertbutyl ether (MTBE)	1634044	5.00E-03 E	8.57E-01 I				180 N	3100 N	6.8 N	10000 N	390 N		
Metolacior (Dual)	51218452	1.50E-01 H					5500 N	550 N	200 N	310000 N	12000 N		
Metribuzin	21807649	2.50E-02 I					910 N	91 N	34 N	51000 N	2000 N		
Mirex	2385855	2.00E-04 I		1.80E+00 W			0.037 C	0.0035 C	0.0018 C	3.2 C	0.35 C		
Molinate	2212671	2.00E-03 I					73 N	7.3 N	2.7 N	4100 N	160 N		
Molybdenum	7439987	5.00E-03 I					180 N	18 N	6.8 N	10000 N	390 N		
Monochloramine	10599903	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
Naled	300765	2.00E-03 I					73 N	7.3 N	2.7 N	4100 N	160 N		
2-Naphthylamine	91598			1.30E+02 E			0.00052 C	0.00005 C	0.00002 C	0.044 C	0.0049 C		
Napropamide	15299997	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
Nickel refinery dust					8.40E-01 I					0.0075 C			
Nickel and compounds	7440020	2.00E-02 I					730 N	73 N	27 N	41000 N	1600 N	6900 E	21 E
Nickel subsulfide	12035722				1.70E+00 I					0.0037 C			
Nitrapyrin	1929824	1.50E-03 W					55 N	5.5 N	2 N	3100 N	120 N		
Nitrate	14797558	1.60E+00 I					58000 N	5800 N	2200 N	1E+06 N	130000 N		
Nitric Oxide	10102439	1.00E-01 W					3700 N	370 N	140 N	200000 N	7800 N		
Nitrite	14797650	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
2-Nitroaniline	88744	6.00E-05 W	5.71E-05 H				2.2 N	0.21 N	0.081 N	120 N	4.7 N		
3-Nitroaniline	99092	3.00E-03 O					110 N	11 N	4.1 N	6100 N	230 N		
4-Nitroaniline	100016	3.00E-03 O					110 N	11 N	4.1 N	6100 N	230 N		
Nitrobenzene	98953	5.00E-04 I	5.71E-04 A				3.4 N	2.1 N	0.68 N	1000 N	39 N	110 E	0.09 E
Nitrofurantoin	67209	7.00E-02 H					2600 N	260 N	95 N	140000 N	5500 N		
Nitrofurazone	59870			1.50E+00 H	9.40E+00 H		0.045 C	0.00067 C	0.0021 C	3.8 C	0.43 C		
Nitrogen dioxide	10102440	1.00E+00 W					37000 N	3700 N	1400 N	1E+06 N	78000 N		
Nitroguanidine	556887	1.00E-01 I					3700 N	370 N	140 N	200000 N	7800 N		
4-Nitrophenol	100027	6.20E-02 O					2300 N	230 N	84 N	130000 N	4800 N		
2-Nitropropane	79469		5.71E-03 I		9.40E+00 H		210 N	0.00067 C					
N-Nitrosodi-n-butylamine	924163			5.40E+00 I	5.60E+00 I		0.012 C	0.0011 C	0.00058 C	1.1 C	0.12 C		
N-Nitrosodiethanolamine	1116547			2.80E+00 I			0.024 C	0.0022 C	0.0011 C	2 C	0.23 C		
N-Nitrosodiethylamine	55185			1.50E+02 I	1.51E+02 I		0.00045 C	0.00004 C	0.00002 C	0.038 C	0.0043 C		
N-Nitrosodimethylamine	62759			5.10E+01 I	4.90E+01 I		0.0013 C	0.00013 C	0.00006 C	0.11 C	0.013 C		
N-Nitrosodiphenylamine	86306			4.90E-03 I			14 C	1.3 C	0.64 C	1200 C	130 C	29 C	0.2 E
N-Nitroso di-n-propylamine	621647			7.00E+00 I			0.0096 C	0.00089 C	0.00045 C	0.82 C	0.091 C	0.014 C	0.00002 E
N-Nitroso-N-methylethylamine	10595954			2.20E+01 I			0.0031 C	0.00028 C	0.00014 C	0.26 C	0.029 C		
N-Nitrosopyrrolidine	930552			2.10E+00 I	2.13E+00 I		0.032 C	0.0029 C	0.0015 C	2.7 C	0.3 C		
m-Nitrotoluene	99081	1.00E-02 H					61 N	37 N	14 N	20000 N	780 N	460 B	0.42 N
o-Nitrotoluene	88722	1.00E-02					61 N	37 N	14 N	20000 N	780 N	460 B	0.42 N
p-Nitrotoluene	99990	1.00E-02					61 N	37 N	14 N	20000 N	780 N	460 B	0.42 N
Norflurazon	27314132	4.00E-02 I					1500 N	150 N	54 N	82000 N	3100 N		



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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg d/mg	CPSi kg d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
							Tap Water µg/L	Ambient Air µg/m <sup>3</sup>	Fish mg/kg	Soil Ingestion		Air mg/kg	Groundwater mg/kg
										Industrial mg/kg	Residential mg/kg		
NuStar	85509199	7.00E-04					26 N	2.6 N	0.95 N	1400 N	55 N		
Octabromodiphenyl ether	32536520	3.00E-03					110 N	11 N	4.1 N	6100 N	230 N		
Octahydro-1357-tetranitro-1357-tetrazocine	2691410	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Octamethylpyrophosphoramidate	102160	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N		
Oryzalin	10044883	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Oxadiazon	19666309	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N		
Oxamyl	23135220	2.50E-02					910 N	91 N	34 N	51000 N	2000 N		
Oxyfluorfen	42874033	3.00E-03					110 N	11 N	4.1 N	6100 N	230 N		
Paclobutrazol	76738620	1.50E-02					470 N	47 N	18 N	27000 N	1000 N		
Paraquat	1910425	4.50E-03					160 N	16 N	6.1 N	9200 N	350 N		
Parathion	56382	6.00E-03					220 N	22 N	8.1 N	12000 N	470 N	110 S	3.9 N
Pebulate	1114712	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Pendimethalin	40487421	4.00E-02					1500 N	150 N	54 N	82000 N	3100 N		
Pentabromo-6-chloro cyclohexane	87843			2.30E-02			2.9 C	0.27 C	0.14 C	250 C	28 C		
Pentabromodiphenyl ether	32534819	2.00E-03					73 N	7.3 N	2.7 N	4100 N	160 N		
Pentachlorobenzene	608935	8.00E-04					4.9 N	2.9 N	1.1 N	1600 N	63 N	570 N	48 N
Pentachloronitrobenzene	82688	3.00E-03		2.60E-01			0.041 C	0.024 C	0.012 C	22 C	2.5 C		
Pentachlorophenol	87865	3.00E-02		1.20E-01			0.56 C	0.052 C	0.026 C	48 C	5.3 C	7.9 C	0.2 E
Permethrin	52645531	5.00E-02					1800 N	180 N	68 N	100000 N	3900 N		
Phenmedipham	13684634	2.50E-01					9100 N	910 N	340 N	510000 N	20000 N		
Phenol	108952	6.00E-01					22000 N	2200 N	810 N	1E+06 N	47000 N	21000 S	49 E
m-Phenylenediamine	108452	6.00E-03					220 N	22 N	8.1 N	12000 N	470 N		
p-Phenylenediamine	106503	1.90E-01					6900 N	690 N	260 N	390000 N	15000 N		
Phenylmercuric acetate	62384	8.00E-05					2.9 N	0.29 N	0.11 N	160 N	6.3 N		
2-Phenyphenol	90437			1.94E-03			55 C	3.2 C	1.6 C	3000 C	330 C		
Phorate	298022	2.00E-04					7.3 N	0.73 N	0.27 N	410 N	16 N		
Phosmet	732116	2.00E-02					730 N	73 N	27 N	41000 N	1600 N		
Phosphine	7803512	3.00E-04	8.57E-06				11 N	0.031 N	0.41 N	610 N	23 N		
Phosphorus (white)	7723140	2.00E-05					0.73 N	0.073 N	0.027 N	41 N	1.6 N		
p-Phthalic acid	100210	1.00E+00					37000 N	3700 N	1400 N	1E+06 N	78000 N		
Phthalic anhydride	85449	2.00E+00	3.43E-02				73000 N	130 N	2700 N	1E+06 N	160000 N		
Picloram	1918021	7.00E-02					2600 N	260 N	95 N	140000 N	5500 N		
Pirimiphos-methyl	29232937	1.00E-02					370 N	37 N	14 N	20000 N	780 N		
Polybrominated biphenyls		7.00E-06		8.90E+08			0.0076 C	0.0007 C	0.00035 C	0.64 C	0.072 C		
Polychlorinated biphenyls (PCBs)	1336363			7.70E+00			0.0087 C	0.00081 C	0.00041 C	0.74 C	0.083 C		8.2 E
Aroclor 1016	12674112	7.00E-05					2.6 N	0.26 N	0.095 N	140 N	5.5 N		
Aroclor 1254	11097691	2.00E-05					0.73 N	0.073 N	0.027 N	41 N	1.6 N		
Polychlorinated terphenyls (PCTs)				4.50E+00			0.015 C	0.0014 C	0.0007 C	1.3 C	0.14 C		
Polynuclear aromatic hydrocarbons													
Acenaphthene	83329	6.00E-02					2200 N	220 N	81 N	120000 N	4700 N	120 S	200 E
Anthracene	120127	3.00E-01					11000 N	1100 N	410 N	610000 N	23000 N	6.8 S	4300 E
	44553			7.30E-01	6.10E-01		0.092 C	0.01 C	0.0043 C	7.8 C	0.88 C	27 S	0.7 E

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									Industrial mg/kg	Residential mg/kg		
Benzo[b]fluoranthene	205992			7.30E-01 E	6.10E-01 E	0.092 c	0.01 c	0.0043 c	7.8 c	0.88 c	23 a	4 e
Benzo[k]fluoranthene	207089			7.30E-02 E	6.10E-02 E	0.92 c	0.1 c	0.043 c	78 c	8.8 c		4 e
Benzo[a]pyrene	50328			7.30E+00 I	6.10E+00 W	0.0092 c	0.001 c	0.00043 c	0.78 c	0.088 c	11 a	4 e
Carbazole	20748			2.00E-02 H		3.4 c	0.31 c	0.16 c	290 c	32 c	11 a	0.5 e
Chrysene	218019			7.30E-03 E	6.10E-03 E	9.2 c	1 c	0.43 c	780 c	88 c	3.6 a	1 e
Dibenz[ah]anthracene	53703			7.30E+00 E	6.10E+00 E	0.0092 c	0.001 c	0.00043 c	0.78 c	0.088 c	7.2 a	11 e
Fluoranthene	206440	4.00E-02 I				1500 n	150 n	54 n	82000 n	3100 n	68 a	980 e
Fluorene	86737	4.00E-02 I				1500 n	150 n	54 n	82000 n	3100 n	89 a	160 e
Indeno[1,2,3-cd]pyrene	193395			7.30E-01 E	6.10E-01 E	0.092 c	0.01 c	0.0043 c	7.8 c	0.88 c	280 a	35 e
Naphthalene	91203	4.00E-02 W				1500 n	150 n	54 n	82000 n	3100 n	180 a	30 e
Pyrene	129080	3.00E-02 I				1100 n	110 n	41 n	61000 n	2300 n	56 a	1400 e
Prochloraz	67747095	9.00E-03 I		1.50E-01 I		0.45 c	0.042 c	0.021 c	38 c	4.3 c		
Profluralin	26399360	6.00E-03 H				220 n	22 n	8.1 n	12000 n	470 n		
Prometon	1610180	1.50E-02 I				550 n	55 n	20 n	31000 n	1200 n		
Prometryn	7287196	4.00E-03 I				150 n	15 n	5.4 n	8200 n	310 n		
Pronamide	23950585	7.50E-02 I				2700 n	270 n	100 n	150000 n	5900 n		
Propachlor	1918167	1.30E-02 I				470 n	47 n	18 n	27000 n	1000 n		
Propanil	709988	5.00E-03 I				180 n	18 n	6.8 n	10000 n	390 n		
Propargite	2312358	2.00E-02 I				730 n	73 n	27 n	41000 n	1600 n		
Propargyl alcohol	107197	2.00E-03 I				73 n	7.3 n	2.7 n	4100 n	160 n		
Propazine	139402	2.00E-02 I				730 n	73 n	27 n	41000 n	1600 n		
Propam	122429	2.00E-02 I				730 n	73 n	27 n	41000 n	1600 n		
Propiconazole	60207901	1.30E-02 I				470 n	47 n	18 n	27000 n	1000 n		
Propylene glycol	57556	2.00E+01 H				730000 n	73000 n	27000 n	1E+06 n	1000000 n		
Propylene glycol, monoethyl ether	52125538	7.00E-01 H				26000 n	2600 n	950 n	1E+06 n	55000 n		
Propylene glycol, monomethyl ether	107982	7.00E-01 H	5.71E-01 I			26000 n	2100 n	950 n	1E+06 n	55000 n		
Propylene oxide	75569		8.57E-03 I	2.40E-01 I	1.29E-02 I	0.28 c	0.49 c	0.013 c	24 c	2.7 c		
Pursuit	81335775	2.50E-01 I				9100 n	910 n	340 n	510000 n	20000 n		
Pydrin	51630581	2.50E-02 I				910 n	91 n	34 n	51000 n	2000 n		
Pyridine	110861	1.00E-03 I				37 n	3.7 n	1.4 n	2000 n	78 n		
Quinalphos	13593038	5.00E-04 I				18 n	1.8 n	0.68 n	1000 n	39 n		
Quinoline	91225			1.20E+01 H		0.0056 c	0.00052 c	0.00026 c	0.48 c	0.053 c		
Resmethrin	10463868	3.00E-02 I				1100 n	110 n	41 n	61000 n	2300 n		
Ronnel	299843	5.00E-02 H				1800 n	180 n	68 n	100000 n	3900 n		
Rotenone	83794	4.00E-03 I				150 n	15 n	5.4 n	8200 n	310 n		
Savey	78587050	2.50E-02 I				910 n	91 n	34 n	51000 n	2000 n		
Selenious Acid	7783008	5.00E-03 I				180 n	18 n	6.8 n	10000 n	390 n		
Selenium	7782492	5.00E-03 I				180 n	18 n	6.8 n	10000 n	390 n		3 e
Selenourea	630104	5.00E-03 H				180 n	18 n	6.8 n	10000 n	390 n		
Sethoxydim	74051802	9.00E-07				3300 n	330 n	120 n	180000 n	7000 n		
Silver and compounds	7440224	5.00E-03				180 n	18 n	6.8 n	10000 n	390 n		
Simazine	122349	5.00E-03 I		1.20E-01 H		0.56 c	0.052 c	0.026 c	48 c	5.3 c		

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Contaminant	CAS	Risk-Based Concentrations				V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
		RfDo	RfDi	CPSo	CPSi		Tap Water	Ambient Air	Fish	Soil Ingestion		Air	Groundwater
		mg/kg/d	mg/kg/d	kg d/mg	kg d/mg		µg/L	µg/m3	mg/kg	Industrial	Residential	mg/kg	mg/kg
Sodium azide	26628228	4.00E-03					150 N	15 N	5.4 N	8200 N	310 N		
Sodium diethyldithiocarbamate	148185	3.00E-02		2.70E-01 H			0.25 C	0.023 C	0.012 C	21 C	2.4 C		
Sodium fluoracetate	62748	2.00E-05					0.73 N	0.073 N	0.027 N	41 N	1.6 N		
Sodium metavanadate	13718268	1.00E-03 H					37 N	3.7 N	1.4 N	2000 N	78 N		
Strontium, stable	7440246	6.00E-01					22000 N	2200 N	810 N	1E+06 N	47000 N		
Strychnine	57249	3.00E-04					11 N	1.1 N	0.41 N	610 N	23 N		
Styrene	100425	2.00E-01	2.86E-01				1600 N	1000 N	270 N	41000 N	16000 N	1400 E	2 E
Sythane	88671890	2.50E-02					910 N	91 N	34 N	51000 N	2000 N		
2,3,7,8-TCDD (dioxin)	1744016			1.56E+05 H	1.16E+05 H		4E-07 C	5E-08 C	C	4E-05 C	4E-06 C		
Tebuthiuron	34014181	7.00E-02					2600 N	260 N	95 N	140000 N	5500 N		
Temephos	3383968	2.00E-02 H					730 N	73 N	27 N	41000 N	1600 N		
Terbacil	5902512	1.30E-02					470 N	47 N	18 N	27000 N	1000 N		
Terbufos	13071799	2.50E-05 H					0.91 N	0.091 N	0.034 N	51 N	2 N		
Terbutryn	886500	1.00E-03					37 N	3.7 N	1.4 N	2000 N	78 N		
1,2,4,5-Tetrachlorobenzene	95943	3.00E-04					1.8 N	1.1 N	0.41 N	610 N	23 N	91 N	0.69 N
1,1,1,2-Tetrachloroethane	630206	3.00E-02		2.60E-02	2.59E-02		0.41 C	0.24 C	0.12 C	220 C	25 C		
1,1,2,2-Tetrachloroethane	79345			2.00E-01	2.03E-01		0.052 C	0.031 C	0.016 C	29 C	3.2 C	0.4 E	0.001 E
Tetrachloroethylene (PCE)	127184	1.00E-02		5.20E-02 H	2.03E-03 E		1.1 C	3.1 C	0.061 C	110 C	12 C	11 E	0.04 E
2,3,4,6-Tetrachlorophenol	58902	3.00E-02					1100 N	110 N	41 N	61000 N	2300 N		
p,a,a,a-Tetrachlorotoluene	5216251			2.00E+01 H			0.00053 C	0.00031 C	0.00016 C	0.29 C	0.032 C		
Tetrachlorovinphos	961115	3.00E-02		2.40E-02 H			2.8 C	0.26 C	0.13 C	240 C	27 C		
Tetraethyldithiopyrophosphate	3609245	5.00E-04					18 N	1.8 N	0.68 N	1000 N	39 N		
Lead (tetraethyl)	78002	1.00E-07					0.0037 N	0.00037 N	0.00014 N	0.2 N	0.0078 N	0.00068 N	0.000034 N
Thallic oxide	1314325	7.00E-05 W					2.6 N	0.26 N	0.095 N	140 N	5.5 N		
Thallium													0.4 E
Thallium acetate	563688	9.00E-05					3.3 N	0.33 N	0.12 N	180 N	7 N		
Thallium carbonate	6533739	8.00E-05					2.9 N	0.29 N	0.11 N	160 N	6.3 N		
Thallium chloride	7791120	8.00E-05					2.9 N	0.29 N	0.11 N	160 N	6.3 N		
Thallium nitrate	10102451	9.00E-05					3.3 N	0.33 N	0.12 N	180 N	7 N		
Thallium selenite	12039520	9.00E-05 W					3.3 N	0.33 N	0.12 N	180 N	7 N		
Thallium sulfate	7446186	8.00E-05					2.9 N	0.29 N	0.11 N	160 N	6.3 N		
Thiobencarb	28249776	1.00E-02					370 N	37 N	14 N	20000 N	780 N		
2-(Thiocyanomethylthio)-benzothiazole	21564170	3.00E-02 H					1100 N	110 N	41 N	61000 N	2300 N		
Thiofanox	39196184	3.00E-04 H					11 N	1.1 N	0.41 N	610 N	23 N		
Thiophanate-methyl	23564058	8.00E-02					2900 N	290 N	110 N	160000 N	6300 N		
Thiram	137268	5.00E-03					180 N	18 N	6.8 N	10000 N	390 N		
Tin and compounds		6.00E-01 H					22000 N	2200 N	810 N	1E+06 N	47000 N		
Toluene	108883	2.00E-01	1.14E-01				750 N	420 N	270 N	410000 N	16000 N	520 E	5 E
Toluene-2,4-diamine	95807			3.20E+00 H			0.021 C	0.002 C	0.00099 C	1.8 C	0.2 C		
Toluene-2,5-diamine	95705	6.00E-01 H					22000 N	2200 N	810 N	1E+06 N	47000 N		
Toluene-2,6-diamine	823405	2.00E-01 H					7300 N	730 N	270 N	410000 N	16000 N		

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Contaminant	CAS	Risk-Based Concentrations				V O C	Soil Screening Levels- Transfers from Soil to:						
		RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg d/mg	CPSi kg d/mg		Tap	Ambient	Fish	Soil Ingestion		Air	Groundwater
							Water µg/L	Air µg/m3		Industrial	Residential		
Toxaphene	8001352			1.10E+00	1.12E+00		0.061 c	0.0056 c	0.0029 c	5.2 c	0.58 c	5 e	0.04 e
Tralomethrin	66841256	7.50E-03					270 n	27 n	10 n	15000 n	590 n		
Triallate	2303175	1.30E-02					470 n	47 n	18 n	27000 n	1000 n		
Triasulfuron	82097505	1.00E-02					370 n	37 n	14 n	20000 n	780 n		
1,2,4-Tribromobenzene	615543	5.00E-03					30 n	18 n	6.8 n	10000 n	390 n		
Tributyltin oxide (TBTO)	56359	3.00E-05					1.1 n	0.11 n	0.041 n	61 n	2.3 n		
2,4,6-Trichloroaniline hydrochloride	33663502			2.90E-02 n			2.3 c	0.22 c	0.11 c	200 c	22 c		
2,4,6-Trichloroaniline	634935			3.40E-02 n			2 c	0.18 c	0.093 c	170 c	19 c		
1,2,4-Trichlorobenzene	120821	1.00E-02	5.71E-02 n				190 n	210 n	14 n	20000 n	780 n	240 e	2 e
1,1,1-Trichloroethane	71556	9.00E-02 w	2.86E-01 w				1300 n	1000 n	120 n	180000 n	7000 n	980 e	0.9 e
1,1,2-Trichloroethane	79005	4.00E-03		5.70E-02	5.60E-02		0.19 c	0.11 c	0.055 c	100 c	11 c	0.8 e	0.01 e
Trichloroethylene (TCE)	79016	6.00E-03 e		1.10E-02 w	6.00E-03 e		1.6 c	1 c	0.29 c	520 c	58 c	3 e	0.02 e
Trichlorofluoromethane	75694	3.00E-01	2.00E-01 a				1300 n	730 n	410 n	610000 n	23000 n	790 n	13 n
2,4,5-Trichlorophenol	95954	1.00E-01					3700 n	370 n	140 n	200000 n	7800 n	8200 n	120 e
2,4,6-Trichlorophenol	88062			1.10E-02	1.09E-02		6.1 c	0.57 c	0.29 c	520 c	58 c	150 c	0.05 e
2,4,5-Trichlorophenoxyacetic acid	93765	1.00E-02					370 n	37 n	14 n	20000 n	780 n		
2-(2,4,5-Trichlorophenoxy)propionic acid	93721	8.00E-03					290 n	29 n	11 n	16000 n	630 n		
1,1,2-Trichloropropane	598776	5.00E-03					30 n	18 n	6.8 n	10000 n	390 n	13 n	0.14 n
1,2,3-Trichloropropane	96184	6.00E-03		7.00E+00			0.0015 c	0.00089 c	0.00045 c	0.82 c	0.091 c	0.00003 c	6.000E-06 c
1,2,3-Trichloropropene	96195	5.00E-03 n					30 n	18 n	6.8 n	10000 n	390 n		
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	3.00E+01	8.57E+00 n				59000 n	31000 n	41000 n	1E+06 n	1000000 n	2400 n	3100 n
Tridiphane	58130082	3.00E-03					110 n	11 n	4.1 n	6100 n	230 n		
Triethylamine	121448		2.00E-03				73 n	7.3 n					
Trifluralin	1582098	7.50E-03		7.70E-03			8.7 c	0.81 c	0.41 c	740 c	83 c		
1,2,4-Trimethylbenzene	95636	5.00E-04 e					3 n	1.8 n	0.68 n	1000 n	39 n		
1,3,5-Trimethylbenzene	108678	4.00E-04 e					2.4 n	1.5 n	0.54 n	820 n	31 n	6.8 n	0.26 n
Trimethyl phosphate	512561			3.70E-02 n			1.8 c	0.17 c	0.085 c	150 c	17 c		
1,3,5-Trinitrobenzene	99354	5.00E-05					1.8 n	0.18 n	0.068 n	100 n	3.9 n		
Trinitrophenylmethylnitramine	479458	1.00E-02 n					370 n	37 n	14 n	20000 n	780 n		
2,4,6-Trinitrotoluene	118967	5.00E-04		3.00E-02			2.2 c	0.21 c	0.11 c	190 c	21 c		
Uranium (soluble salts)	7440611	3.00E-03					110 n	11 n	4.1 n	6100 n	230 n		
Vanadium	7440622	7.00E-03 n					260 n	26 n	9.5 n	14000 n	550 n		
Vanadium pentoxide	1314621	9.00E-03					330 n	33 n	12 n	18000 n	700 n		
Vanadium sulfate	36907423	2.00E-02 n					730 n	73 n	27 n	41000 n	1600 n		
Vernam	1929777	1.00E-03					37 n	3.7 n	1.4 n	2000 n	78 n		
Vinclozolin	50471448	2.50E-02					910 n	91 n	34 n	51000 n	2000 n		
Vinyl acetate	108054	1.00E+00 n	5.71E-02				22000 n	210 n	1400 n	1E+06 n	78000 n	370 e	84 e
Vinyl bromide	593602		8.57E-04				5.2 n	3.1 n				2 n	0.018 n
Vinyl chloride	75014			1.90E+00 n	3.00E-01 n		0.019 c	0.021 c	0.0017 c	3 c	0.34 c	0.002 e	0.01 e
Warfarin	81812	3.00E-04					11 n	1.1 n	0.41 n	610 n	23 n		
m-Xylene	108323	2.00E+00 n	2.00E-01 w				1400 n	730 n	2700 n	1E+06 n	160000 n	950 n	260 n
o-Xylene	95476	2.00E+00 n	2.00E-01 w				1400 n	730 n	2700 n	1E+06 n	160000 n	730 n	160 n

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Contaminant	CAS	RfDo mg/kg/d	RfDi mg/kg/d	CPSo kg·d/mg	CPSi kg·d/mg	V O C	Risk-Based Concentrations					Soil Screening Levels- Transfers from Soil to:	
							Tap Water	Ambient Air	Fish	Soil Ingestion		Air	Groundwater
							µg/L	µg/m <sup>3</sup>	mg/kg	Industrial mg/kg	Residential mg/kg	mg/kg	mg/kg
p-Xylene	106423		8.57E-02 w			☐	520 n	310 n				1000 a	220 w
Xylene (mixed)	1330207	2.00E+00 i				☐	12000 n	7300 n	2700 n	1E+06 n	160000 n	320 e	74 e
Zinc	7440666	3.00E-01 i					11000 n	1100 n	410 n	610000 n	23000 n		42000 e
Zinc phosphide	1314847	3.00E-04 i					11 n	1.1 n	0.41 n	610 n	23 n		
Zineb	12123677	5.00E-02 i					1800 n	180 n	68 n	100000 n	3900 n		