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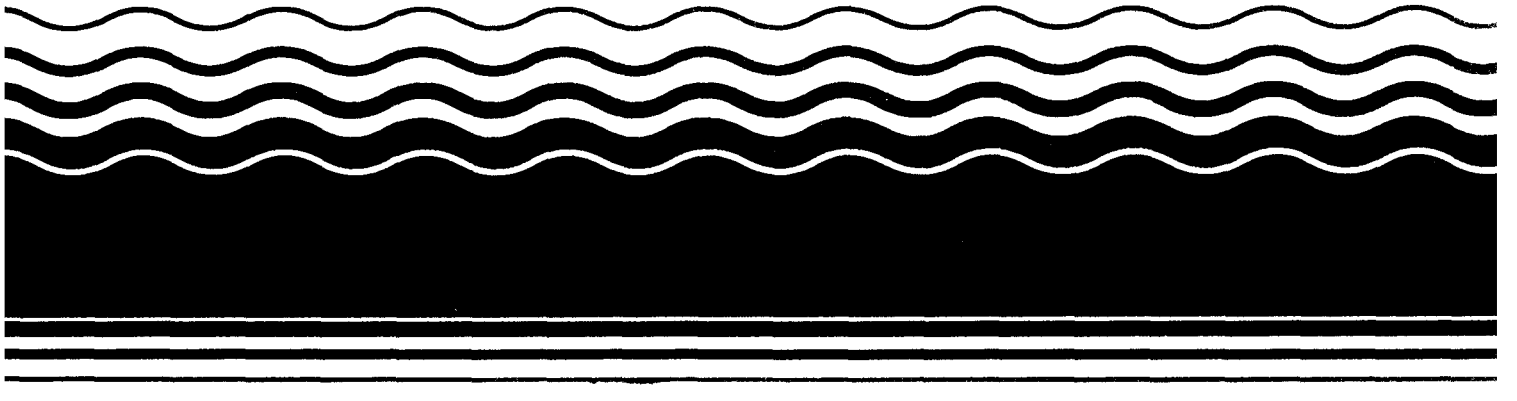
FY 1997 Update



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HEALTH EFFECTS ASSESSMENT

SUMMARY TABLES

FY-1997 Update

Office of Research and Development
Office of Emergency and Remedial Response
U.S. Environmental Protection Agency
Washington, DC 20460

HEALTH EFFECTS ASSESSMENT SUMMARY TABLES
FY-1997 UPDATE

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DISCLAIMER

This report has been prepared by the U.S. Environmental Protection Agency. The information contained herein has been taken from final documents prepared by the National Center for Environmental Assessment for the Office of Solid Waste and Emergency Response and the Office of Water, Washington, DC and the Office of Air Quality Planning and Standards, Research Triangle Park, NC. These documents were reviewed in accordance with Agency policy and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

TABLE OF CONTENTS

Page

INTRODUCTION 1

WHAT'S NEW IN THE FY97 HEAST UPDATE 10

USER'S GUIDE: CHEMICAL TOXICITY 14

USER'S GUIDE: RADIONUCLIDE CARCINOGENICITY 27

HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY) 1-1

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY) R1-1

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY) 2-1

REFERENCES FOR HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY) R2-1

HEAST TABLE 3: CARCINOGENICITY 3-1

REFERENCES FOR HEAST TABLE 3: CARCINOGENICITY R3-1

HEAST TABLE 4: RADIONUCLIDE CARCINOGENICITY - SLOPE FACTORS (IN UNITS OF PICOCURIES) 4-1

APPENDIX A: TECHNICAL INFORMATION A-1

INTRODUCTION

This document is an FY97 Update of the Health Effects Assessment Summary Tables (HEAST) prepared by EPA's National Center for Environmental Assessment, Cincinnati, OH (NCEA-CIN) for use at both Superfund and RCRA sites. It is intended to replace former editions and supplements of the HEAST. The HEAST will be updated annually if sufficient new data exist.

The HEAST is a comprehensive listing consisting almost entirely of PROVISIONAL RISK ASSESSMENT INFORMATION relative to oral and inhalation routes for chemicals of interest to Superfund, the Resource Conservation and Recovery Act (RCRA), and the EPA in general. Although these entries in the HEAST have undergone review and have the concurrence of individual Agency Program Offices, and each is supported by an Agency reference, they have not had enough review to be recognized as high quality, Agency-wide consensus information.

The Integrated Risk Information System (IRIS) is the Agency's official repository of Agency-wide consensus chronic human health risk information. Until recently, IRIS evaluations were conducted by the Agency's Work Group Review process. To improve IRIS and to make it more useful, EPA requested and received public comment. As a consequence the Agency has initiated an IRIS Pilot program to replace the Reference Dose/Reference Concentration (RfD/RfC) and the Carcinogen Risk Assessment Verification Endeavor (CRAVE) Work Groups.

The Pilot will produce new or updated toxicological reviews and IRIS entries containing Agency consensus scientific positions on potential adverse human health effects that may result from chronic exposure to environmental contaminants.

The Pilot process consists of (1) a call for public involvement for interested parties to have some level of input into IRIS technical information, (2) a search of the relevant literature,

(3) development of toxicological reviews and draft IRIS summaries, (4) internal peer review within EPA, (5) external peer review by experts selected for each substance outside EPA, (6) consensus review and management approval within EPA, (7) preparation of final IRIS summaries and supporting documents, and (8) entry of summaries into the IRIS database.

Currently, the Pilot process, which has been underway since early FY 1996, is being applied to a select group of chemical substances chosen on the basis of the Agency's need for new or updated hazard or dose-response information. These assessments will be included in IRIS, and do not appear in the HEAST.

There are two exceptions to the above discussion. The HEAST also contains information on chemicals included under the National Ambient Air Quality Standards (NAAQS) and the Drinking Water Criteria Document (DWCD) series. In each of these cases, the chemicals are subject to extensive scientific peer review for quality assurance.

CHEMICAL STATUS DEFINITIONS

Chemicals previously reviewed by the Agency for consensus are classified according to their status as either "verified," "not verifiable," or "under review." The toxicity values (other than NAAQS or DWCD values) listed on the HEAST are considered to be "provisional." The Agency has no official definitions for these terms, but the HEAST user may interpret them as follows:

> **Provisional:** A toxicity value or a cancer value is "provisional" if the value has had some form of Agency review, but it does not appear on the IRIS system. These values are generated in several ways. Often they are determined in the course of developing an Agency document on a chemical or on a class of chemicals. Some have been generated through the earlier Work Group process, but have not yet been input to the IRIS system. At the time each value was derived, all available information on the chemical was evaluated, the value was calculated using the most current methodology, and a consensus was reached on the value by Agency scientists.
>
> Brackets are placed around the names of toxicity and carcinogenicity values on the HEAST to distinguish these "provisional" values from information on IRIS.

The following names are affected: RfD to [RfD], RfC to [RfC], slope factor to [slope factor], EPA group to [EPA Group] and unit risk to [unit risk].

These "provisional" values are found on the HEAST. They do not appear on IRIS.

Verified: A toxicity value or a cancer value receives Agency consensus as "verified" after all available information has been reviewed and a value has been calculated using current methodology. Verified values are entered on IRIS.

Some numbers that have achieved unanimous consensus by the previous Agency Work Groups may appear on the HEAST as "provisional" values.

These "verified" numbers only appear on IRIS. They do not appear on the HEAST.

Not verifiable: A toxicity value is "not verifiable" if all available data on a chemical was determined by the Agency to be inadequate to generate a value that would be suitable for inclusion on IRIS. No toxicity value is calculated; no toxicity value is available for IRIS or the HEAST.

This "not verifiable" status is noted on IRIS, and is sometimes found on the HEAST, with a pointer to the IRIS system.

Under Review: A toxicity value is "under review" if it is undergoing the Pilot process of considering all available data. All Pilot chemicals will have this status until the toxicity value is placed on IRIS.

This "under review" status may be indicated on IRIS or on the HEAST. During this time, "provisional" toxicity values may appear on the HEAST.

Note: In all cases, the status of a chemical may change as new data become available, and the assessment is revisited, reviewed and verified through the Pilot Proces previously described.

CAUTION

It is imperative for each user of the HEAST to recognize that the values listed in the toxicity tables and the cancer table are generally considered to be PROVISIONAL RISK ASSESSMENT INFORMATION. The user is referred to IRIS for earlier "Work Group Verified" values. It is also important to remember that the numbers in these tables alone tell very little

about the adverse effects of a chemical or the quality of evidence on which risk assessment information is based. Original assessment documents must be consulted by users of the HEAST in order to fully appreciate the strengths and limitations of a specific data base. Original source documents will allow for the most complete characterization of potential toxicity associated with the range of exposure pathways generally evaluated at Superfund and RCRA sites. The Reference Tables point the user to these sources.

CONTRIBUTORS

Chemicals commonly found at RCRA sites as identified by the Office of Solid Waste's (OSW) Technical Assessment Branch are included in the HEAST. The Office of Radiation Programs has provided data on radionuclide carcinogenicity for Table 4. Finally, the Office of Air Quality Planning and Standards (OAQPS) has provided information on chemicals for which Air Quality Criteria Documents and National Ambient Air Quality Standards have been developed.

CHEMICALS LISTED

Most of the chemicals included on the toxicity tables and carcinogenicity table are those for which at least one of the following EPA documents has been written: Health Effects Assessment Document (HEA), Health and Environmental Effects Profile (HEEP), Health and Environmental Effects Document (HEED), Health Assessment Document (HAD), Air Quality Criteria Document (AQCD), Drinking Water Criteria Document (DWCD). A description of each is provided in Appendix A, Section I. In a few cases, the values are supported by other written material, such as Work Group meeting notes or Carcinogen Assessment Group (CAG) Profiles. Radionuclide slope factor values are calculated by the EPA's Office of Radiation Programs.

The names of criteria pollutants that are regulated as National Ambient Air Quality Standards (NAAQS) under the Clean Air Act are listed in the main body of the HEAST, but the actual criteria are included as Section V of Appendix A. The NAAQS were not included in the tables in order to distinguish them from the reference concentration ([RfC]) values. The NAAQS and [RfC]s represent different levels of review and different methods of calculation and thus, must be interpreted and used differently.

HIERARCHY OF SOURCES

It is recognized that at any point in time there may be multiple old and new Agency documents or data bases that present different values on a specific chemical. For chemicals other than those represented by the NAAQS or DWCDs, the following hierarchy of sources is recommended in evaluating chemical toxicity for Superfund sites:

1. The Agency's Integrated Risk Information System (IRIS) and cited references. Changes are made in this data base on a monthly basis, but there may be data gaps. Call the RISK INFORMATION HOTLINE at (513)569-7254 for further information.

2. The Health Effects Assessment Summary Tables (HEAST) and cited references.

3. Consultation with the Superfund Health Risk Technical Support Center (TSC) at (513)569-7300.

4. Do not consult either the toxicity tables (Appendix A) in the Superfund Public Health Evaluation Manual (SPHEM, U.S. EPA, 1986) or the September 1988 Public Health Risk Evaluation Data Base (PHRED) as these sources are likely to contain numerous values that have since become out-of-date.

QUESTIONS

Chemical Toxicity and Carcinogenicity

Questions regarding the contents of the chemical toxicity and carcinogenicity tables on the HEAST (e.g., chemicals not covered, chemicals with pending [RfD]s) may be directed to

EPA's Superfund Health Risk Technical Support Center (TSC) in Cincinnati, OH at (513)569-7300 [FAX#: (513)569-7159]. Requests should include the following information:

- Superfund site name, site location and twelve-digit site number;
- Name and phone number of the site Remedial Project Manager (RPM) or Regional Risk Assessor/Toxicologist;
- Detailed description of the risk assessment related question.

Written requests should be mailed to:

Superfund Health Risk Technical Support Center
US EPA
26 W. Martin Luther King Dr.
National Center for Environmental Assessment
MS - G44
Cincinnati, OH 45268

Radionuclide Carcinogenicity

Questions concerning radionuclide carcinogenicity should first be addressed by contacting the appropriate Regional Radiation Program Manager. A revised listing of these managers and several contacts in the Office of Radiation Programs can be found in Exhibit 2 of the User's Guide - Radionuclide Carcinogenicity.

REFERENCES

Most cited Agency references (e.g., HEAs, HEEPs, HEEDs), are available through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161 [(703)487-4650]. Carcinogen Assessment Group (CAG) Profiles cited in Table 3 are available through the RCRA docket (703)603-9230.

Drinking water documents are available by calling the Water Resource Center at (202)260-7786.

ORDERING INFORMATION

Limited copies of the HEAST are available for EPA Superfund staff, State Superfund programs and other Federal agencies working on Superfund sites, and EPA contractors working for the EPA Superfund program. Users in these groups can call International Consultants, Inc. (513)569-7300 to be put on the mailing list. Regional OSW staff are reminded that copies are sent to all EPA Regional libraries.

Users of the HEAST in EPA's Office of Air and Radiation and State air programs should call Roy Smith of EPA's Office of Air Quality Planning and Standards at (919)541-5632.

All other users must purchase the document from:

National Technical Information Service (NTIS)

5285 Port Royal Road

Springfield, VA 22161

(703)487-4650

For ordering information, call the NTIS Subscriptions Department at (703)487-4630. NTIS normally ships 4th class United States mail. When ordering the 1997 Health Effects Assessment Summary Table annual update from NTIS refer to the following order number:

PB97-921199: FY97 Annual HEAST update

STRUCTURE OF THE HEAST

The HEAST Introduction contains explanatory material relative to the quality of information on the HEAST, its sources, and its availability. This is followed by a listing of changes since the last HEAST was published and then by User's Guides for both Chemical Toxicity and Carcinogenicity, and Radionuclide Carcinogenicity. The values on the HEAST are

presented in a series of five tables that contain toxicity information and three tables of references. The information contained in each table and their designations are as follows:

HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)
Table 1 lists subchronic and chronic non-cancer toxicity values that were calculated using the methodology practiced by the RfD/RfC Work Group.

HEAST TABLE 1 REFERENCES: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)
The references for Table 1 are numerically coded to associate each toxicity value clearly with its corresponding reference.

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)
Table 2 lists subchronic and chronic non-cancer toxicity values that are found in Agency documents, but were calculated by alternative methods that were not practiced by the RfD/RfC Work Group. These values are considered to be adequate provisional values for risk assessment purposes at Superfund and RCRA sites, but are to be reviewed and revised when necessary to reflect current information.

HEAST TABLE 2 REFERENCES: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)
The references for Table 2 are numerically coded to associate each toxicity value clearly with its corresponding reference.

HEAST TABLE 3: CARCINOGENICITY
Table 3 lists carcinogenicity values that were calculated by the CRAVE Work Group using Agency methodology.

HEAST TABLE 3 REFERENCES: CARCINOGENICITY
The references for Table 3 are numerically coded to associate each toxicity value clearly with its corresponding reference.

HEAST TABLE 4: RADIONUCLIDE CARCINOGENICITY - SLOPE FACTORS (In Units of Picocuries)
Table 4 lists ingestion, inhalation and external exposure carcinogenicity slope factors for radionuclides in units of picocuries and a factor to convert into the International System (SI) activity units of becquerels (Bq).

Following the tables, a Technical Appendix (Appendix A) is available, containing the following sections:

I. Data Sources and Selection Criteria Used in HEAST

II. Dose Conversions on HEAST

III. Chemical Name and Chemical Abstracts Service Registry Number Cross Reference

IV. Effect Level Definitions

V. National Ambient Air Quality Standards (NAAQS)

WHAT'S NEW IN THE FY97 ANNUAL HEAST

GENERAL CHANGES -- CHEMICAL TOXICITY AND CARCINOGENICITY

The changes in this version of the HEAST reflect changes in IRIS through July 1, 1997.

CHEMICAL-SPECIFIC CHANGES -- CHEMICAL TOXICITY AND CARCINOGENICITY

A. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

Benzo[b]fluoranthene 000205-99-2
Removed from Table 1 due to incomplete subchronic [RfC] assessment.

Bis(2-chloroisopropyl)ether 039638-32-9
Removed general comment from Table 1.

Chlorobenzene 000108-92-7
Removed from Table 1 the subchronic [RfD] comment due to incomplete assessment.

Dichloroethane, 1,2- 000107-06-2
Removed from Table 1 due to incomplete subchronic [RfC] and [RfD] assessments.

Manganese 007439-96-5
Removed the subchronic oral water [RfD] from Table 1 and citation 010850 from References to Table 1.

Trichloroethane, 1,1,1- 000071-55-6
Removed subchronic [RfC] comment from Table 1 due to incomplete assessment.

Uranium, Soluble Salts No CAS #
Removed from Table 1 due to incomplete assessment.

B. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

Dicyclopentadiene 000077-73-6
Changed target organ from liver to kidney.

C. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 3: CARCINOGENICITY

Allyl chloride 000107-05-1
The general comment, "contact the Health Assessment Section" is removed from Table 3.

Arsenic, inorganic 007440-38-2
Removed inhalation [slope] factor value and comment from Table 3.

Benzo(b)fluoranthene 000205-99-2
Removed general comment.

Benzo(k)fluoranthene 000207-08-9
Removed the general comment, "contact the Health Assessment Section".

Chloromethyl methyl ether 000107-30-2
The general comment, "contact the Health Assessment Section" is removed.

Chrysene 000218-01-9
The general comment, "contact the Health Assessment Section" is removed.

Dibenzo[a,h]anthracene 000053-70-3
The general comment, "contact the Health Assessment Section" is removed.

Dichloroethane, 1,2- 000107-06-2
The inhalation [slope] factor and comment are removed from Table 3.

Dimethylbenz[a]anthracene, 7,12- 000057-97-6
Removed from Table 3. The general comment, "contact the Health Assessment Section" is removed from Table 3 References.

Methylcolanthracene, 3- 000056-49-5
Removed from Table 3 and from Table 3 References.

Nitroso-n-ethylurea, N- 000759-73-9
Removed the general comment, "contact the Health Assessment Section".

Polychlorinated biphenyls 001336-36-3
Added general comment: Carcinogenicity information was changed on IRIS.

D. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 4: RADIONUCLIDE CARCINOGENICITY -- SLOPE FACTORS

No changes made to Table 4.

CHEMICAL SPECIFIC CHANGES MADE IN THE NOVEMBER 1995 SUPPLEMENT TO THE MAY 1995 HEAST ANNUAL UPDATE

The following changes were made in the November 1995 supplemental edition of the May 1995 HEAST Annual Update. Because some users may have been unaware of the publication of the November 1995 supplement, the following information should be noted.

A. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

Antimony trioxide 001309-64-4
An indicator was added to show that an inhalation RfC has been added to IRIS. The chronic inhalation RfC was adopted as the subchronic inhalation [RfC].

Boron, elemental 007440-42-8
The subchronic oral [RfD] was removed because the chronic oral RfD on which it was based is under review by the RfD/RfC Work Group.

Carbon disulfide 000075-15-0
An indicator was added to show that an inhalation RfC has been added to IRIS. The chronic inhalation RfC was adopted as the subchronic inhalation [RfC].

Hydrogen sulfide 007783-06-4
After a reevaluation of uncertainty factors by the RfD/RfC Work Group, the chronic inhalation RfC was modified to estimate the subchronic inhalation [RfC].

Mercuric chloride 007487-94-7
After a reevaluation of uncertainty factors by the RfD/RfC Work Group, The chronic oral RfD was modified to estimate the subchronic oral [RfD].

Phosphine 007803-51-2
An indicator was added to show that an inhalation RfC has been added to IRIS. The chronic inhalation RfC was modified to estimate the subchronic inhalation [RfC].

B. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

There were no changes to Table 2.

C. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 3: CARCINOGENICITY

Arsenic, inorganic 007440-38-2
Indicators were added to show that an oral slope factor and an oral unit risk have been added to IRIS.

Bis(2-chloro-1-methylethyl) ether 000108-60-1
A typographical error in the CAS Registry Number has been corrected. There were no other changes to the record.

D. CHEMICAL-SPECIFIC CHANGES ON HEAST TABLE 4: RADIONUCLIDE CARCINOGENICITY - SLOPE FACTORS

For the November 1995 Supplement of the HEAST for radionuclides, EPA's Office of Radiation and Indoor Air (ORIA) has:

✓ corrected the factor in Table 4 for converting radionuclide slope factors from the customary units of picocuries (Ci) to the International System (SI) units of becquerels (Bq). (To convert radionuclides slope factors into the SI units of Bq, users should multiply each value in Table 4 by 27.03, not by 3.70E-02, the conversion factor provided in the May 1995 update.)

✓ added ingestion, inhalation, and external exposure slope factors for californium (Cf-252), iridium (Ir-192), thallium (Tl-207), and silver (Ag-110m+D).

✓ removed the ingestion, inhalation, and external slope factors for Cm-243+D and Pu-241+D. (EPA/ORIA re-evaluated the derivation and use of "+D" slope factors for decay chains that include a parent radionuclide (e.g., Cm-243 or Pu-241) with a radioactive half-life much shorter than the half-life of its immediate decay product (e.g., Pu-239 in the case of Cm-243 and Am-241 in the case of Pu-241). ORIA concluded that using "+D" slope factors for these types of radionuclides and decay chains may significantly underestimate radiation exposure and risk at certain sites, because such factors cannot be derived to cover all possible equilibrium conditions in the environment. At sites contaminated with these types of radionuclides, ORIA recommends that users (1) determine the radioactivity concentrations of the parent and each decay product radionuclides separately, (2) apply the appropriate slope factors in Table 4 for each radionuclide individually, and (3) add the individual risks from each radionuclide to calculate the collective risk posed by the site.)

✓ corrected the external slope factor values for Ac-227+D, Ce-144+D, Pu-244+D, Th-228+D, Th-229+D, and U-238+D in Table 4.

✓ corrected the branching factor for Ce-144 to Pr-144 from 9% to 98%, and corrected the half-life for Ra-228 from 8 years to 6 years in Exhibit 1.

USER'S GUIDE: CHEMICAL TOXICITY

The HEAST summarizes provisional toxicity and cancer values as well as values developed for the NAAQS and DWCD chemicals. The provisional status of the toxicity and cancer values is indicated by placing brackets around the title of the value. These include provisional reference concentrations ([RfC]) and provisional reference doses ([RfD]) for toxicity from subchronic and chronic inhalation and oral exposure (Tables 1 and 2) and provisional slope factors ([slope factor]), provisional cancer classifications ([EPA Group]) and provisional unit risk values ([unit risk]) for carcinogenicity, based on lifetime inhalation and oral exposure (Table 3). Brackets should be included with the acronym whenever a user quotes the value in an assessment document, and the provisional nature of the value should be noted. A more complete discussion of how Superfund develops and considers the toxicity assessment in hazardous waste sites is presented in Chapter 7 of Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual, Part A, EPA/540/1-89/002.

The references listed for each chemical in the Reference Tables for Tables 1, 2 and 3 represent the study or studies that are the basis for the [RfC], [RfD], [slope factor], [EPA Group], or [unit risk], as well as the EPA reference that is the source of the Agency analysis or risk assessment information. In some cases, additional EPA documents are also listed as a source of information on the chemical. Verified values found on IRIS are not found on the HEAST, but are indicated in the tables by the word "*IRIS*" in place of the number.

TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

The [RfC] or [RfD] is a provisional estimate (with uncertainty spanning perhaps an order of magnitude) of the daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a portion of the lifetime, in the case of a subchronic [RfC] or [RfD], or during a lifetime, in the case of a chronic [RfC] or [RfD]. The [RfC] and [RfD] values are listed in Tables 1 and 2 in columns with the headings "Subchronic" and "Chronic". The critical dose or concentration level is usually a No-Observed-Adverse-Effect Level (NOAEL) or a Lowest-Observed-Adverse-Effect Level (LOAEL) (See Appendix A, Section IV: Effect Level Definitions, for more information). The [RfC] or [RfD] is derived by dividing the NOAEL or LOAEL by an uncertainty factor (UF) times a modifying factor (MF):

$$[RfC] \text{ or } [RfD] = \frac{NOAEL \text{ or } LOAEL}{UF \times MF}$$

In Tables 1 and 2, the information listed is the following:

Chemical	=	Chemical Name/CASRN
Level	=	Effect Level
Dose	=	Administered Dose or Concentration
Route	=	Route of Administration
Species	=	Tested Species
Experiment Length	=	Length of Exposure
Target	=	Target Organ(s) Affected at Critical Level
Critical Effect	=	Effect(s) Observed at Critical Level
Subchronic [RfC]	=	Subchronic Inhalation [Reference Concentration]
UF	=	Uncertainty Factor for the Subchronic Inhalation [Reference Concentration]
Subchronic [RfD]	=	Subchronic Oral [Reference Dose]
UF	=	Uncertainty Factor for the Subchronic Oral [Reference Dose]
Chronic [RfC]	=	Chronic Inhalation [Reference Concentration]

UF	=	Uncertainty Factor for the Chronic Inhalation [Reference Concentration]
Chronic [RfD]	=	Chronic Oral [Reference Dose]
UF	=	Uncertainty Factor for the Chronic Oral [Reference Dose]
Reference	=	Reference Identification Number for All Toxicity Values on the Same Line.

An example of this information is shown in Figure 1, HEAST Table 1:

Chemical	=	GLYCIDALDEHYDE/000765-34-4
Level	=	NOAEL
Dose	=	10 PPM
Route	=	INHALATION: INTERMITTENT
Species	=	RAT
Experiment Length	=	12 WEEKS
Target	=	WHOLE BODY, BLOOD, KIDNEY
Critical Effect	=	DECREASED WEIGHT GAIN, HEMATOPOIETIC EFFECTS
Subchronic [RfC]	=	1E-2 mg/cu.m
UF	=	300
Subchronic [RfD]	=	4E-3 mg/kg/day
UF	=	300
Chronic [RfC]	=	1E-3 mg/cu.m
UF	=	3000
Chronic [RfD]	=	IRIS
UF	=	IRIS
Reference	=	005968

Notice that a Chronic RfD for Glycidaldehyde is available on IRIS, so it is not listed here. Also notice that there are footnotes for this chemical that indicate a route-to-route extrapolation was performed and that there is information available on Table 3: Carcinogenicity.

Also given in Figure 1 is an example of the References for Table 1 for the same chemical. The reference is identified by the chemical name (Glycidaldehyde), the CASRN (00765-34-4), and the reference number that links it with the toxicity values (005968).

FIGURE 1

Example Data and References for Chemical Toxicity

HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

January 1992

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT	LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
GLYCIDALDEHYDE		000765-34-4								
NOAEL	10 PPM	RAT				1E-2	4E-3	1E-3	IRIS	005968
	INHALATION	12 WEEKS	WHOLE BODY		DECREASED WEIGHT GAIN	300	300	3000		
	INTERMITTENT		BLOOD		HEMATOPOIETIC EFFECTS					
			KIDNEY		EFFECTS					

SUBCHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5
CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5
GENERAL COMMENT ALSO SEE TABLE 3 CARCINOGENICITY

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

January 1992

GLYCIDALDEHYDE 000765-34-4

005968 HINE CH, RJ GUZMAN, MK DUNLAP, R LIMA AND GS LOQUVAM 1961 STUDIES ON THE TOXICITY OF GLYCIDALDEHYDE ARCH ENVIRON HEALTH 2 23-30

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENTFOR GLYCIDALDEHYDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, National Center for Environmental Assessment, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

The uncertainty factor used in calculating the [RfC] or [RfD] reflects scientific judgment regarding the various types of data used to estimate [RfC] or [RfD] values. An uncertainty factor of 10 is usually used to account for variation in human sensitivity among populations. An additional 10-fold factor is usually used to account for each of the uncertainties assumed when extrapolating from animal data to humans, when extrapolating from a LOAEL to a NOAEL, and when extrapolating from subchronic to chronic exposure. In order to reflect professional assessment of the uncertainties of the study and the data base not explicitly addressed by the above uncertainty factors (e.g., completeness of the overall data base), an additional uncertainty factor or modifying factor ranging from greater than 0 to less than or equal to 10 is applied. The default value for this modifying factor is 1.

For chemicals for which a chronic [RfC] or [RfD] is presented in Tables 1 and 2, a subchronic [RfC] or [RfD] is usually derived, if not previously derived in the Agency documents that originally addressed the chemical. Subchronic toxicity values are not evaluated by the RfD/RfC Work Group. The subchronic [RfC] or [RfD] is derived in either of two ways: 1) If an uncertainty factor was used to account for extrapolation from subchronic to chronic exposure in the derivation of the chronic [RfC] or [RfD], then, the subchronic [RfC] or [RfD] is derived from the same benchmark concentration or dose without applying the uncertainty factor for subchronic to chronic exposure extrapolation. 2) If the chronic [RfC] or [RfD] was derived without use of an uncertainty factor for extrapolating from subchronic to chronic exposure (e.g., if chronic data were available), then, the chronic [RfC] or [RfD] is adopted as the subchronic [RfC] or [RfD].

Tables 1 and 2 list the uncertainty factor and modifying factor, multiplied together, to form a single factor under the heading "Uncertainty Factor." For example, the uncertainty factor of 3000 listed for the chronic inhalation [RfC] for Glycidaldehyde reflects an uncertainty factor of 1000 (10 for human sensitivity, 10 for extrapolation from animal to human, and 10 for extrapolation from subchronic to chronic) and a modifying factor of 3 (for an inadequate data base); the uncertainty factor of 500 listed for the subchronic oral [RfD] for cyanide reflects an uncertainty factor of 100 (10 for human sensitivity, and 10 for extrapolation from animal to human) and a modifying factor of 5 (to account for tolerance to cyanide when ingested by food rather than administration by gavage or by drinking water).

[RfC] and [RfD] values are specific for the route of exposure for which they are listed on Tables 1 and 2. In the few instances where an [RfD] or [RfC] has been determined from another exposure route, route-to-route extrapolation is indicated by a footnote.

The current methodology for the derivation of inhalation RfCs is detailed in the document, "Interim Methods for Development of Inhalation Reference Doses" (U.S. EPA, 1990, EPA/600/8-88/066F, NTIS PB90-145723). These methods are different from those used for oral RfDs because of (1) the dynamics of the respiratory system and its diversity across species, and (2) differences in the physicochemical properties of contaminants (such as the size and shape of a particle or whether the contaminant is an aerosol or a gas). Parameters such as deposition, clearance mechanisms and the physicochemical properties of the inhaled agent are considered in the determination of the effective dose delivered to the target organ.

An RfC value calculated using this interim methodology is generally reported as a concentration in air (mg/m^3), although it may be converted to a corresponding inhaled dose (mg/kg/day) by dividing by 70 kg (an assumed human body weight), multiplying by 20 m^3/day (an assumed human inhalation rate), and adjusting by an appropriate absorption factor. This conversion, however, may often be technically incorrect, and the appropriateness of doing this must be evaluated on a case-by-case basis. It is recommended that HEAST users that plan to use this technique read a further discussion of the difficulties inherent in this dose conversion that can be found in Appendix A, Section II: Dose Conversions On HEAST.

Inhalation [RfC] values reported in HEAs and early HEEDs that were finalized prior to the implementation of the interim methods were calculated using methods similar in concept to those used for oral [RfD]s. These values are reported both as a concentration in air (in mg/m^3 for continuous, 24 hours/day exposure) under the column [RfC], and as a corresponding inhaled dose (in mg/kg/day) in the footnotes called, Chronic (Subchronic) [RfC] Comment. These chemicals are listed in Table 2: Alternate Methods - Subchronic and Chronic Toxicity (Other Than Carcinogenicity).

[RfD] values for oral exposure are reported as mg/kg/day. An oral [RfD] value can be converted to a corresponding concentration in drinking water, assuming human body weight of 70 kg and water consumption of 2 L/day, as follows:

$$mg/L \text{ in water} = \frac{\text{oral [RfD] (in mg/kg/day)} \times 70 \text{ kg}}{2 \text{ L/day}}$$

The [RfC] or [RfD] is used as a reference point for gauging the potential effects of other exposures. Usually, exposures that are less than the [RfC] or [RfD] are not

likely to be associated with health risks. As the frequency of exposures exceeding the [RfC] or [RfD] increases and as the size of the excess increases, the probability increases that adverse health effects may be observed in a human population. Nonetheless, a clear distinction that would categorize all exposures below the [RfC] or [RfD] as "acceptable" (risk-free) and all exposures in excess of the [RfC] or [RfD] as "unacceptable" (causing adverse effects) cannot be made. In addition, [RfC] and [RfD] values, and particularly those with limitations in the quality or quantity of supporting data, are subject to change as additional information becomes available.

When [RfC] or [RfD] values are listed in Tables 1 or 2 for chemicals that are carcinogens, a footnote will refer to Table 3 if additional information concerning carcinogenicity is available in that table. [RfC] and [RfD] values that have been derived for carcinogens are based on noncancer endpoints only and should not be assumed to be protective against carcinogenicity.

TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

Chemicals are listed in Table 2 when the [RfD] or [RfC] was derived from alternative methods that were not practiced by the RfD/RfC Work Group. The table consists primarily of inhalation [RfC] values determined from methodology that does not follow the interim inhalation methods adopted by the Agency, and [RfC] or [RfD] values based on route-to-route extrapolation with inadequate pharmacokinetic and toxicity data. A footnote is added to each chemical to provide a short explanation of the specific methodology used in calculating these provisional toxicity values. Most of

these toxicity values were formerly listed in Table 1. In some instances, the chemical may be listed in both Tables 1 and 2 if the chemical has more than one toxicity value. Table 2 follows the same format as Table 1 (refer to Figure 1).

TABLE 3: CARCINOGENICITY

In assessing the carcinogenic potential of a chemical, the Human Health Assessment Group (HHAG) of EPA classifies the chemical into one of the following groups, according to the weight of evidence from epidemiologic and animal studies:

Group A - Human Carcinogen (sufficient evidence of carcinogenicity in humans)

Group B - Probable Human Carcinogen (B1 - limited evidence of carcinogenicity in humans; B2 - sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans)

Group C - Possible Human Carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data)

Group D - Not Classifiable as to Human Carcinogenicity (inadequate or no evidence)

Group E - Evidence of Noncarcinogenicity for Humans (no evidence of carcinogenicity in adequate studies).

These classifications are shown under [EPA Group] on Table 3.

Quantitative carcinogenic risk assessments are performed for chemicals in Groups A and B, and on a case-by-case basis for chemicals in Group C. Cancer [slope factors] (formerly called cancer potency factors in the Superfund Public Health Evaluation Manual) are estimated through the use of mathematical extrapolation models, most

commonly the linearized multistage model, for estimating the largest possible linear slope (within the 95% confidence limit) at low extrapolated doses that is consistent with the data. The [slope factor] or risk is characterized as an upper-bound estimate, i.e., the true risk to humans, while not identifiable, is not likely to exceed the upper-bound estimate and in fact may be lower.

Quantitative carcinogenic estimates listed in Table 3 include the following:

[slope factor] = risk per unit dose = risk per mg/kg/day

[unit risk] for inhalation exposure = risk per concentration unit in air = risk per $\mu g/m^3$

[unit risk] for oral exposure = risk per concentration unit in water = risk per µg/L

[Unit risk] estimates for inhalation and oral exposure can be calculated by dividing the appropriate [slope factor] by 70 kg and multiplying by the inhalation rate (20 m^3/day) or the water consumption rate (2 L/day), respectively, for risk associated with unit concentration in air or water. Hence,

$$\text{risk per } \mu g/m^3 \text{ (air)} = (\text{risk per mg/kg/day}) \times \frac{1}{70 \text{ kg}} \times 20 \text{ } m^3/\text{day} \times 10^{-3} \text{ (mg/µg)}$$

$$\text{risk per } \mu g/L \text{ (water)} = (\text{risk per mg/kg/day}) \times \frac{1}{70 \text{ kg}} \times 2 \text{ L/day} \times 10^{-3} \text{ (mg/µg)}$$

Quantitative estimates of carcinogenic risk are listed under [Unit Risk] or [Slope Factor] in Table 3. Information on the study and data set used for estimation of the [slope factor] is given in the other columns of Table 3.

In Table 3, the information listed is the following:

Chemical	=	Chemical Name/CASRN
Route	=	Route of Administration
Species	=	Tested Species
Experiment Length	=	Length of Exposure
Target	=	Target Organ(s) Affected at Critical Level
Cancer	=	Tumors Observed at Critical Level (Not Specified if More Than One Type of Tumor)
[EPA Group]	=	EPA Classification by Weight of Evidence
Oral [Slope Factor]	=	Risk Per Unit Dose
Inhalation [Slope Factor]	=	Risk Per Unit Dose
Oral [Unit Risk]	=	Risk Per Concentration Unit in Water
Inhalation [Unit Risk]	=	Risk Per Concentration Unit in Air
Reference	=	Reference Identification Number for All Toxicity Values on the Same Line.

An example of this information is shown in Figure 2, HEAST Table 3:

Chemical	=	DIMETHYLHYDRAZINE, 1,2-/000077-78-1
Route	=	ORAL: DRINKING WATER
Species	=	MOUSE
Experiment Length	=	LIFETIME
Target	=	CARDIOVASCULAR SYSTEM
Cancer	=	TUMORS
[EPA Group]	=	B2
Oral [Slope Factor]	=	3.7E+1 (MG/KG/DAY)-1
Inhalation [Slope Factor]	=	3.7E+1 (MG/KG/DAY)-1
Oral [Unit Risk]	=	1.1E-3 (UG/L)-1
Inhalation [Unit Risk]	=	1.1E-2 (UG/CU M)-1
Reference	=	009993

Notice that the inhalation values for 1,2-Dimethylhydrazine was extrapolated from the oral data.

Also given in Figure 2 is an example of the References for Table 3 for the same chemical. The reference is identified by the chemical name (Dimethylhydrazine, 1,2-), the CASRN (000077-78-1), and the reference number that links it with the toxicity values (009993).

FIGURE 2
Example Data and References for Carcinogenicity

HEAST TABLE 3: CARCINOGENICITY

January 1992

CHEMICAL ROUTE	EXPERIMENT LENGTH	SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL $(mg/kg/day)^{-1}$	[SLOPE FACTOR] INHALATION $(mg/kg/day)^{-1}$	[UNIT RISK] ORAL $(ug/L)^{-1}$	[UNIT RISK] INHALATION $(ug/cu\ m)^{-1}$	REFERENCE
DIMETHYLHYDRAZINE,1,2- 000077-78-1										
ORAL DRINKING WATER	LIFETIME				B2	3.7E+1	3.7E+1	1.1E-3	1 1E-2	009993
		MOUSE	CARDIOVASCULAR SYSTEM	TUMORS						
Inhalation [Slope] Comment			BASED ON ROUTE TO ROUTE EXTRAPOLATION							

REFERENCES FOR HEAST TABLE 3: CARCINOGENICITY

January 1992

DIMETHYLHYDRAZINE, 1,2- 000077-78-1

009993 TOTH B AND K PATEL 1982 CARCINOGENICITY DOSE-RESPONSE STUDY BY CONTINUOUS ADMINISTRATION OF 1,2-DIMETHYLHYDRAZINE DI-HYDROCHLORIDE IN MICE I LIGHT AND TRANSMISSION ELECTRON MICROSCOPIC STUDY OF COLONOIC NEOPLASMS AM J OF PATH 84 69-86

US EPA 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

Quantitative carcinogenic estimates are specific for the route of exposure for which they are listed on Table 3. Footnotes are used to indicate those instances in which the values for inhalation or oral exposure are based on extrapolation from another route of exposure. The route-to-route conversion required to present inhalation [slope factors] in the units of mg/kg/day is considered by the CRAVE Work Group to be technically incorrect. It is recommended that HEAST users who plan to use this information read a further discussion of the difficulties inherent in this dose conversion which can be found in Appendix A, Section II: Dose Conversions On HEAST.

To estimate risk-specific concentrations in air from the [unit risk] in air as presented in Table 3, the specified level of risk is divided by the [unit risk] for air. Hence, the air concentration (in $\mu g/m^3$) corresponding to an upper-bound increased lifetime cancer risk of $1x10^{-5}$ is calculated as follows:

$$\mu g/m^3 \text{ in air} = \frac{1x10^{-5}}{[\text{unit risk}] \text{ in } (\mu g/m^3)^{-1}}$$

To estimate risk-specific concentrations in drinking water from the oral [slope factor] values presented in Table 3, the specified level of risk is multiplied by 70 kg and divided by the [slope factor] times 2 L/day. Hence, the water concentration corresponding to an upper-bound increased lifetime cancer risk of $1x10^{-5}$ is calculated as follows:

$$\text{mg/L in water} = \frac{1x10^{-5} \times 70 \text{ kg}}{[\text{slope factor}] \text{ in } (\text{mg/kg/day})^{-1} \times 2 \text{ L/day}}$$

USER'S GUIDE: RADIONUCLIDE CARCINOGENICITY

Introduction

EPA classifies all radionuclides as Group A carcinogens. HEAST Table 4 lists ingestion, inhalation and external exposure cancer slope factors for radionuclides in units of picocuries (pCi).[1] Ingestion and inhalation slope factors are central estimates in a linear model of the age-averaged, lifetime attributable radiation cancer incidence (fatal and nonfatal cancer) risk per unit of activity inhaled or ingested, expressed as risk/pCi. External exposure slope factors are central estimates of lifetime attributable radiation cancer incidence risk for each year of exposure to external radiation from photon-emitting radionuclides distributed uniformly in a thick layer of soil, and are expressed as risk/yr per pCi/gram soil. When combined with site-specific media concentration data and appropriate exposure assumptions[2], slope factors can be used to estimate lifetime cancer risks to members of the general population due to radionuclide exposures.

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[1]Slope factors are reported in Table 4 in the customary units of picocuries (1 pCi = 10^{-12} curies (Ci) = 3.7×10^{-2} nuclear transformations per second) for consistency with the system used for radionuclides in the IRIS database. If required, slope factors in Table 4 can be converted into the International System (SI) units of becquerels (1 Bq = 1 nuclear transformation per second) by multiplying each inhalation, ingestion, or external exposure value by 27.03. Users can calculate cancer risks using slope factors expressed in either customary units or SI units with equivalent results, provided that they also use air, water and soil concentration values in the same system of units.

[2]Agency standardized default exposure scenarios and assumptions for use in baseline risk assessment are provided in EPA (1991), *Risk Assessment Guidance for Superfund, Vol. I, Human Health Evaluation Manual, Supplemental Guidance:* "Standard Default Exposure Factors" (Interim Final), Office of Emergency and Remedial Response, OSWER Directive 9285.6-03. [NTIS order number: PB 91-921314.]

Intended Users and Applications

HEAST users include individuals from the EPA, other Federal agencies, States and contractors who are responsible for the identification, characterization and remediation of sites contaminated with radioactive materials. Radionuclide slope factors are calculated by EPA's Office of Radiation and Indoor Air (ORIA) to assist HEAST users with risk-related evaluations and decision-making at various stages of the remediation process. During site assessment, for example, slope factors are used in EPA's Hazard Ranking System (HRS) to assign toxicity factor values to radionuclides to calculate site scores. During the remedial investigation and feasibility study (RI/FS), slope factors are used to determine baseline site risk, to develop preliminary remediation goals, and to evaluate cleanup alternatives. For further examples on the application of radionuclide slope factors in risk evaluations, users are referred to the following EPA documents:

- Hazard Ranking System (HRS), Federal Register (55 FR 515320), December 1990.
- *Risk Assessment Guidance for Superfund; Volume I - Human Health Evaluation Manual* (RAGS/HHEM), Part A, Baseline Risk Assessment (EPA/540/1-89/002).
- RAGS/HHEM Part B, Development of Risk-Based Preliminary Remediation Goals (OSWER Directive 9285.7-01B). [NTIS order number: PB 92-963333.]
- RAGS/HHEM Part C, Risk Evaluation of Remedial Alternatives (OSWER Directive 9285.7-01C). [NTIS order number: PB 92-963334.]

Copies of RAGS/HHEM Parts A, B and C are available to the public from the National Technical Information Service (NTIS) at (703) 487-4650. Copies are available to EPA staff by calling the Superfund Documents Center at (703) 603-8917.

Radiation Effects

Ionizing radiation has been shown to be a carcinogen, a mutagen, and a teratogen. Radiation can induce cancers in nearly any tissue or organ in both humans and animals, and the probability of cancer induction increases with increasing radiation dose. Cancer induction is a delayed response that has been documented extensively in epidemiological studies of Japanese atomic bomb survivors, underground uranium miners, radium dial painters, and patients subject to a variety of radiation treatments. Laboratory animal research and mammalian tissue culture studies have provided additional, collaborative data.

Mutagenic effects of radiation have been demonstrated primarily in animal and tissue culture studies; limited data from studies of A-bomb survivors indicate that humans may be as sensitive or less sensitive than animals to radiogenic mutagenicity. Data are also available from both human and animal studies on the teratogenic effects of radiation. These data show that the fetus is most sensitive to radiation injury during the early stages of organ development (between 8 and 15 weeks for the human fetus). Resultant radiation-induced malformations depend on which cells are most actively differentiating at the time of exposure.

EPA classifies all radionuclides as Group A carcinogens, based on their property of emitting ionizing radiation and on the extensive weight of evidence provided by epidemiological studies of radiogenic cancers in humans. At Superfund radiation sites, EPA generally evaluates potential human health risks based on the radiotoxicity, i.e., adverse health effects caused by ionizing radiation, rather than on the chemical toxicity, of each radionuclide present. These evaluations consider the carcinogenic effects of

radionuclides only. In most cases, cancer risks are limiting, exceeding both mutagenic and teratogenic risks.

Derivation of Radionuclide Slope Factors

EPA's Office of Radiation and Indoor Air (ORIA) calculates radionuclide slope factor values using health effects data and dose and risk models from a number of national and international scientific advisory commissions and organizations, including the National Academy of Sciences (NAS), the National Council on Radiation Protection and Measurements (NCRP), the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), and the International Commission on Radiological Protection (ICRP). A detailed discussion of ORIA's approach and assumptions is provided in *Estimating Radiogenic Cancer Risks* (EPA 402-R-93-076).

Radionuclide slope factors are calculated for each radionuclide individually, based on its unique chemical, metabolic and radioactive properties. The calculation uses dose estimates from EPA's computer code RADRISK[3], vital statistics from the *U.S. Decennial Life Tables for 1979-1981* (described in EPA 402-R-93-076), and cancer risk estimates based largely on the results of the NAS BEIR V report[4], ICRP Publication 60[5],

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[3]Dunning, D.E. Jr., Leggett, R.W., and Yalcinatas, M.G. (1980). "A Combined Methodology for Estimating Dose Rates and Health Effects from Exposure to Radioactive Pollutants," ORNL/TM-7105.

[4]National Academy of Sciences (1990). Health Effects of Exposure to Low Levels of Ionizing Radiation, BEIR V, Committee on the Biological Effects of Ionizing Radiations, National Research Council, Washington, D.C.

[5]International Commission on Radiological Protection (1991), 1990 Recommendations of the International Commission on Radiological Protection, ICRP Publication 60, Pergamon Press, New York, NY.

and U.S. Nuclear Regulatory Commission (NRC) analyses[6]. Ingestion and inhalation slope factors for radionuclides account for:

- the amount of radionuclide transported into the bloodstream from either the gastrointestinal (GI) tract following ingestion, or from the lungs following inhalation;
- the ingrowth and decay of radioactive progeny produced within the body subsequent to intake;
- the distribution and retention of each radionuclide (and its associated progeny, if appropriate) in body tissues and organs;
- the radiation dose delivered to body tissues and organs from the radionuclide (and its associated progeny, if appropriate); and
- the sex, age, and organ-specific risk factors over the lifetime of exposure.

The slope factors are the average risk per unit intake or exposure for an individual in a stationary population with vital statistics (mortality rates) of the United States in 1980. (The expected lifetime for an individual in this population is about 74 years.) Consequently, radionuclide ingestion and inhalation slope factors are <u>not</u> expressed as a function of body weight and time, and do <u>not</u> require corrections for GI absorption or lung transfer efficiencies.

<u>NOTE</u>: ***The GI absorption values (f_1), ICRP lung classifications (D, W, Y) and radioactive half-lives are provided in HEAST Table 4 for reference only and should not be used to correct, modify, or in any way adjust radionuclide slope factors or intake assumptions in risk calculations.***

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[6]U.S. Nuclear Regulatory Commission (1991, 1993), <u>Health Effects Models for Nuclear Power Plant Accident Consequence Analysis</u>, NUREG/CR-4214. Addenda documenting the scientific basis for radiogenic risk models published in 1991 (for low-LET radiation) and 1993 (for alpha radiation). See EPA 402-R-93-076 for discussion of these models.

External slope factors provide cancer risk estimates per unit exposure to a uniform radionuclide concentration in soil. These factors, which account for photon energy flux attenuation and buildup in soil, are calculated for each radionuclide using volume and surface dose factors derived using the computer code DFSOIL.[7]

Because of the radiation risk models employed for both internal and external exposures, slope factors for radionuclides are characterized as central estimates in a linear model of the age-averaged lifetime total radiation cancer incidence risk per unit intake or exposure.

About the Information Provided in Table 4

Table 4 lists ingestion, inhalation and external exposure slope factors for principal radionuclides, and provides key parameter values used in the derivation of slope factor values. Radionuclides are presented alphabetically by element and atomic weight.

Selected radionuclides and radioactive decay chain products are designated in HEAST Table 4 with the suffix "+D" (e.g., U-238+D, Ra-226+D, Cs-137+D) to indicate that cancer risk estimates for these radionuclides include the contributions from their short-lived decay products, assuming equal activity concentrations (i.e., secular equilibrium) with the principal or parent nuclide in the environment.[8] Decay chains are identified in Exhibit 1.

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[7]Sjoreen, A.L., Kocher, D.C., Killough, G.G. and Miller C.W. (1984). "MLSOIL and DFSOIL - Computer Codes to Estimate Effective Ground Surface Concentrations for Dose Computations," ORNL-5974, Oak Ridge National Laboratory, Oak Ridge, TN.

[8]There is one exception to the assumption of secular equilibrium. For the inhalation slope factor for Rn-222+D reported in HEAST Table 4, ORIA assumes a 50% equilibrium value for radon decay products (Po-218, Pb-214, Bi-214 and Po-214) in air.

In most cases, site-specific analytical data should be used to establish the actual degree of equilibrium between each parent radionuclide and its decay products in each media sampled. However, in the absence of empirical data, the "+D" values for radionuclides should be used unless there are compelling reasons not to. For example, the external slope factors for Cs-137 and Cs-137+D are 0.0 and $2x10^{-6}$ (risk per year per pCi/gram), respectively. The value for Cs-137+D is higher because it includes the risk contribution from cesium's short-lived gamma-emitting decay product Ba-137m (half-life, 25.5 minutes) which, under most environmental conditions, will be in secular equilibrium with Cs-137.

Note that there may be circumstances, such as long disposal times or technologically enhanced concentrations of naturally occurring radionuclides, that may necessitate the combination of the risks of a parent radionuclide and its decay products over several contiguous subchains. For example, Ra-226 soil analyses at a site might show that all radium decay products are present in secular equilibrium down to stable Pb-206 (See Exhibit 1). In this case, Ra-226 risk calculations should be based on the ingestion, inhalation and external exposure slope factors for the Ra-226+D subchain, plus the ingestion, inhalation and external exposure factors for the Pb-210+D subchain. For actual sites, users should consult with a health physicist or radiochemist (1) to evaluate the site-specific analytical data to determine the degree of equilibrium between parent radionuclides and decay members of contiguous decay chains and (2) to assist in the combination of appropriate slope factor values. For health physics and radioanalytical support, HEAST users may contact EPA's Regional Radiation Program Managers, ORIA's National Air and Radiation Environmental Laboratory (NAREL) in

Montgomery, Alabama, ORIA's Las Vegas Laboratory (ORIA-LV) in Las Vegas, Nevada, or the ORIA contact at EPA headquarters in Washington, D.C., listed in Exhibit 2.

A Chemical Abstract System Reference Number (CASRN) is assigned to each radionuclide for identification and reporting accuracy during risk assessments, and radioactive half-lives are provided for reference.

The designations "D", "W", and "Y" presented in Table 4 under the heading "ICRP Lung Class" in the tables refer to the lung clearance times for inhaled particulate radionuclides, expressed as days (D), weeks (W), or years (Y), as recommended by the International Commission on Radiological Protection (ICRP). Gaseous radionuclides, e.g., Rn-222, are designated with an asterisk ("*"). "GI Absorption Factors, f_1" are the fractional amounts of each radionuclide that may be absorbed from the gastrointestinal (GI) tract into blood following an oral intake. The ICRP lung clearance classifications and GI absorption factors provided in Table 4 are the default values that EPA used to calculate radionuclide slope factors for inhalation and ingestion exposures, respectively. These factors are provided *for reference only* (see the Note Box).

Where to Address Questions About Radionuclide Slope Factors:

EPA continuously reviews the scientific literature on radiation effects to ensure that the Agency's risk assessment methodologies are consistent with current models and assumptions. As risk methodologies are refined, EPA will revise and update the slope factors in Table 4.

HEAST users with questions about radionuclide slope factor values and their use in radiation risk assessments should contact Michael Boyd of the Remedial Guidance Section of the Radiation Assessment Branch of ORIA at (202) 233-9395. Written requests for assistance can be sent by fax to (202) 233-9650.

Exhibit 1. Radionuclide Decay Chains Considered Explicitly in HEAST Table 4[9]

Principal Radionuclide [a]		Associated Decay Chain [b]	Terminal Nuclide or Radionuclide [c]	
Nuclide	Half-life (yr)		Nuclide	Half-life (yr)
Ac-227+D	22	[Th-227 (98.62%, 19 d)] Fr-223 (1.38%, 22 min) Ra-223 (11 d) Rn-219 (4 s) Po-215 (2 ms) Pb-211 (36 min) Bi-211 (2 min) [Tl-207 (99.72%, 5 min) Po-211 (0.28%, 0.5 s)]	Pb-207	*
Ag-108m+D	127	-[d] Ag-108 (8.90%, 2 min)	Pd-108 (91.1%) [Cd-108 (97.65%) Pd-108 (2.35%)]	* * *
Ag-110m+D	0.7	- Ag-110 (1.33%, 25 s)	Cd-110 (98.67%) [Cd-110 (99.7%) Pd-110 (0.3%)]	* * *
Am-243+D	7.4×10^3	Np-239 (2 d)	Pu-239	2.4×10^4
Ce-144+D	0.8	[Pr-144 (98.22%, 17 min) Pr-144m (1.78%, 7 min)]	Nd-144	*
Cs-137+D	30	Ba-137m (94.6%, 3 min)	Ba-137	*
Np-237+D	2.1×10^6	Pa-233 (27 d)	U-233	1.6×10^5
Pb-210+D	22	Bi-210 (5 d) Po-210 (138 d)	Pb-206	*
Pu-244+D	8.3×10^7	U-240 (14 h) Np-240m (7 4 min)	Pu-240	6.5×10^3
Ra-226+D	1.6×10^3	Rn-222 (4 d) Po-218 (3 min) [Pb-214 (99.98%, 27 min) At-218 (0.02%, 2 s)] Bi-214 (99.99%, 20 min) [Po-214 (99.98%, 1.64×10^{-4} s) Tl-210 (0.02%, 1 min)]	Pb-210	22
Ra-228+D	6	Ac-228 (6 h)	Th-228	2
Ru-106+D	1	Rh-106 (30 s)	Pd-106	*

[9]Source: International Commission on Radiological Protection (1983). Radionuclide Transformations: Energy and Intensity of Emission, ICRP Publication 38, Annals of the ICRP, Vols. 11-13, Pergamon Press, New York, NY.

Exhibit 1. Radionuclide Decay Chains Considered Explicitly in HEAST Table (Continued)

Principal Radionuclide [a]			Terminal Nuclide or Radionuclide [c]	
Nuclide	Half-life (yr)	Associated Decay Chain [b]	Nuclide	Half-life (yr)
Sb-125+D	3	Te-125m (22.8%, 58 d)	Te-125	*
Sr-90+D	29	Y-90 (64 h)	Zr-90	*
Th-228+D	2	Ra-224 (4 d) Rn-220 (56 s) Po-216 (0.2 s) Pb-212 (11 h) Bi-212 (61 min) [Po-212 (64.07%, 0.3 μs) Tl-208 (35.93%, 3 min)]	Pb-208	*
Th-229+D	7.3×10^3	Ra-225 (15 d) Ac-225 (10 d) Fr-221 (5 min) At-217 (32 ms) Bi-213 (46 min) [Po-213 (97.8%, 4 μs) Tl-209 (2.2%, 2 min)] Pd-209 (3 h)	Bi-209	*
U-235+D	7.0×10^8	Th-231 (26 h)	Pa-231	3.3×10^4
U-238+D	4.5×10^9	Th-234 (24 d) [Pa-234m (99.80%, 1 min) Pa-234 (0.33%, 7 h)]	U-234	2.4×10^5

(a) Radionuclides with half-lives greater than six months. "+D" designates principal radionuclides with associated decay chains.

(b) The chain of decay products of a principal radionuclide extending to (but not including) the next principal radionuclide or a stable radionuclide. Half-lives are given in parentheses. Branches are indicated by square brackets with branching percentages in parentheses.

(c) The principal radionuclide or stable nuclide that terminates an associated decay chain. Stable nuclides are indicated by an asterisk (*) in place of a half-life.

(d) A hyphen indicates that there are no associated decay products.

Exhibit 2. EPA Radition Program Managers

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HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ACENAPHTHENE		**000083-32-9**							
NOAEL 175 MG/KG/DAY		MOUSE							
	ORAL: GAVAGE	90 DAYS	LIVER	HEPATOTOXICITY		6E-1 300		IRIS	010165
ACENAPTHYLENE		**000208-96-8**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005202
ACEPHATE		**030560-19-1**							
LOAEL 2 PPM		RAT							
	ORAL DIET	13 WEEKS	BRAIN	DECREASED CHOLINESTERASE ACTIVITY		4E-3 30		IRIS	005833
	GENERAL COMMENT	ALSO SEE HEAST TABLE 3. CARCINOGENICITY							
ACETONE		**000067-64-1**							
NOEL 100 MG/KG/DAY		RAT							
	ORAL GAVAGE	90 DAYS	LIVER	INCREASED WEIGHT		1E+0		IRIS	005204
			KIDNEY	INCREASED WEIGHT		100			
			KIDNEY	NEPHROTOXICITY					
ACETONE CYANOHYDRIN / (2-METHYLLACTONITRILE)		**000075-86-5**							
NOAEL 8 75 MG/(KG-DAY)		RAT							
	ORAL GAVAGE	90 DAYS	LIVER	INCREASED RELATIVE WEIGHT		8E-3 300		8E-4 3000	005776
	SUBCHRONIC [RfC] COMMENT	*ALSO SEE HEAST TABLE 2. ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)*							
	CHRONIC [RfC] COMMENT	ALSO SEE HEAST TABLE 2. ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)							

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ACETONITRILE		**000075-05-8**							
NOAEL 100 PPM		MOUSE							
	INHALATION·	92 DAYS	ERYTHROCYTES	DECREASED CELL COUNT		6E-2		IRIS	005210
	INTERMITTENT		BLOOD	DECREASED HEMATOCRIT		300			
			LIVER	HEPATIC LESIONS					
	SUBCHRONIC [RfC] COMMENT· ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
	SUBCHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5.								
	CHRONIC [RfC] COMMENT. ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
	CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0.5 UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.								
ACETOPHENONE		**000098-86-2**							
NOAEL 10,000 PPM		RAT							
	ORAL· DIET	17 WEEKS		NONE OBSERVED		1E+0		IRIS	005212
						300			
									010874
	CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (06/25/92) BY THE RfD/RfC WORK GROUP								
ACROLEIN		**000107-02-8**							
NOAEL 15 6 MG/KG/DAY		RAT							
	ORAL. WATER	90 DAYS						2E-2	010390
								1000	
	GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY								
							IRIS		010856

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ACRYLAMIDE		**000079-06-1**							
NOEL	0.2 MG/KG/DAY	RAT							
	ORAL. DRINKING WATER	90 DAYS	NERVE	DAMAGE		2E-3 100		IRIS	005835
	GENERAL COMMENT. ALSO SEE HEAST TABLE 3· CARCINOGENICITY								
							IRIS		010876
	CHRONIC RfC COMMENT· THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (09/20/90) BY THE RfD/RfC WORK GROUP								
ACRYLIC ACID		**000079-10-7**							
NOAEL	53 MG/KG/DAY	RAT							
	ORAL DRINKING WATER	2 GENERATION	WHOLE BODY	DECREASED PUP WEIGHT		5E-1 100		IRIS	005836
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD ON IRIS WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
LOAEL	5 PPM	MOUSE							
	INHALATION· INTERMITTENT	13 WEEKS	NASAL MUCOSA	LESIONS	3E-3 100		IRIS		010346
ACRYLONITRILE		**000107-13-1**							
NOAEL	1 MG/(KG-DAY)	MOUSE							
	ORAL. GAVAGE	60 DAYS	TESTES	DECREASED SPERM COUNTS		1E-2		1E-3	010939
			TESTES	SEMINIFEROUS TUBULE DEGENERATION		100		1000	
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL [RfD] UNDER REVIEW BY THE RfD/RfC WORK GROUP WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT. ALSO SEE HEAST TABLE 3 CARCINOGENICITY								
ADIPONITRILE		**000111-69-3**							
	GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005157

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ALACHLOR		**015972-60-8**							
NOEL	1 MG/KG/DAY	DOG							
	ORAL CAPSULE	1 YEAR	BLOOD	ANEMIA		1E-2		IRIS	005837
			SITES, MULTIPLE	HEMOSIDEROSIS		100			
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY.								
ALDICARB		**000116-06-3**							
NOAEL	0.01 MG/KG-DAY	HUMAN							
	ORAL	ACUTE	CENTRAL NERVOUS SYSTEM	SWEATING		1E-3 10		IRIS	010960
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT. CLINICAL SIGNS OF ACETYL CHOLINESTERASE INHIBITION INCLUDING SWEATING, PINPOINT PUPILS, LEG WEAKNESS, NAUSEA, DIARRHEA AND OTHER EFFECTS WERE OBSERVED IN THE PRINCIPAL AND SUPPORTING STUDIES.								
ALDRIN		**000309-00-2**							
LOAEL	0.025 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS	LIVER	LESIONS		3E-5 1000		IRIS	005159
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3, CARCINOGENICITY								
ALLIDOCHLOR		**000093-71-0**							
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005838

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT	LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ALLYL ALCOHOL		**000107-18-6**								
NOEL	50 PPM	RAT								
	ORAL: DRINKING WATER	15 WEEKS		LIVER KIDNEY	EFFECTS EFFECTS		5E-2 100		IRIS	005839
ALLYL CHLORIDE		**000107-05-1**								
NOAEL	17 MG/CU M	RABBIT								
	INHALATION INTERMITTENT	5 MONTHS		NERVOUS SYSTEM	NEUROTOXICITY	1E-2 300		IRIS		010369
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3· CARCINOGENICITY									
ALUMINUM		**007429-90-5**								
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005162
ALUMINUM PHOSPHIDE		**020859-73-8**								
NOAEL	0.43 MG/KG/DAY	RAT								
	ORAL: DIET	2 YEARS		WHOLE BODY UNSPECIFIED	ALTERED WEIGHT ALTERED CLINICAL PARAMETERS		4E-4 100		IRIS	010255
AMETRYN		**000834-12-8**								
NOEL	10 MG/KG/DAY	RAT								
	ORAL. GAVAGE	13 WEEKS		LIVER	EFFECTS		9E-2 100		IRIS	005841
AMINO-2-NAPHTHOL, 1-		**002834-92-6**								
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005842
AMINO-2-NAPHTOL HYDROCHLORIDE, 1-		**001198-27-2**								
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005843

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
AMINOPHENOL, M-		**000591-27-5**							
NOAEL 1300 PPM		RAT							
	ORAL: DIET	13 WEEKS	WHOLE BODY	ALTERED WEIGHT		7E-1		7E-2	005844
			THYROID	ALTERED WEIGHT		100		1000	
AMINOPHENOL, O-		**000095-55-6**							
	GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.							005845
AMINOPHENOL, P-		**000123-30-8**							
	GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.							005846
AMINOPYRIDINE, 4-		**000504-24-5**							
NOAEL 3 PPM		RAT							
	ORAL: DIET	90 DAYS	LIVER	INCREASED WEIGHT		2E-4		2E-5	005847
			BRAIN	INCREASED WEIGHT		1000		10000	
AMMONIA		**007664-41-7**							
NOAEL 34 MG/L		HUMAN							
	ORAL DRINKING WATER		SENSORY	TASTE THRESHOLD		34 MG/L 1		34 MG/L 1	005166
	SUBCHRONIC [RfD] COMMENT:	GIVEN AS CONCENTRATION IN DRINKING WATER. SPECIFICALLY RELATED TO ORGANOLEPTIC THRESHOLD SAFE CONCENTRATION MAY BE HIGHER, BUT DATA ARE INADEQUATE TO ASSESS							
	CHRONIC [RfD] COMMENT:	GIVEN AS CONCENTRATION IN DRINKING WATER. SPECIFICALLY RELATED TO ORGANOLEPTIC THRESHOLD. SAFE CONCENTRATION MAY BE HIGHER, BUT DATA ARE INADEQUATE TO ASSESS.							
NOAEL 6 4 MG/CU M		HUMAN							
	INHALATION: INTERMITTENT		NASAL CAVITY	RHINITIS	1E-1		IRIS		010392
			LUNGS	PNEUMONIA	30				
			LUNGS	LESIONS					

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ANILINE		**000062-53-3**							
NOAEL 19 MG/CU M		MOUSE							
	INHALATION: INTERMITTENT	20-26 WEEKS	SPLEEN	PATHOLOGY	1E-2 300		IRIS		010370
		RAT 20-26 WEEKS	SPLEEN	PATHOLOGY					
		GUINEA PIG 20-26 WEEKS	SPLEEN	PATHOLOGY					
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY								
ANTHRACENE		**000120-12-7**							
NOEL 1000 MG/KG/DAY		MOUSE							
	ORAL: GAVAGE	90 DAYS		NONE OBSERVED		3E+0 300		IRIS	010166
	CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/04/94) BY THE RfD/RfC WORK GROUP								010964
ANTIMONY PENTOXIDE		**001314-60-9**							
LOAEL 0 46 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	LIFETIME	WHOLE BODY	INCREASED MORTALITY		5E-4		5E-4	005174
			BLOOD	ALTERED CHEMISTRIES		1000		1000	
	SUBCHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.								
	CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ANTIMONY POTASSIUM TARTRATE 000304-61-0									
LOAEL 0.91 MG/KG/DAY		RAT							
	ORAL. DRINKING WATER	LIFETIME	WHOLE BODY	INCREASED MORTALITY		9E-4		9E-4	005234
			BLOOD	ALTERED CHEMISTRIES		1000		1000	
	SUBCHRONIC [RfD] COMMENT· CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
	CHRONIC [RfD] COMMENT· CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.								
ANTIMONY TETROXIDE 001332-81-6									
LOAEL 0 44 MG/KG/DAY		RAT							
	ORAL DRINKING WATER	LIFETIME	WHOLE BODY	INCREASED MORTALITY		4E-4		4E-4	005238
			BLOOD	ALTERED CHEMISTRIES		1000		1000	
	SUBCHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.								
	CHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
ANTIMONY TRIOXIDE 001309-64-4									
LOAEL 0.42 MG/KG/DAY		RAT							
	ORAL DRINKING WATER	LIFETIME	WHOLE BODY	INCREASED MORTALITY		4E-4		4E-4	005242
			BLOOD	ALTERED CHEMISTRIES		1000		1000	
	SUBCHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
	CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO ANTIMONY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
BMC 0.87 MG/CU M		RAT							
	INHALATION, INTERMITTENT	1 YEAR	LUNG	PULMONARY TOXICITY	2E-4		IRIS		010974
			LUNG	INTERSTITIAL INFLAMMATION, CHRONIC	30				
	CHRONIC RfC COMMENT· A BENCHMARK DOSE APPROACH WAS USED RATHER THAN A NOAEL/LOAEL TO DERIVE THE RfC.								
	SUBCHRONIC [RfC] COMMENT. THE CHRONIC INHALATION RfC IS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) / UF	Subchronic [RfD] (mg/kg/day) / UF	Chronic [RfC] (mg/cu m) / UF	Chronic [RfD] (mg/kg/day) / UF	REFERENCE
ANTIMONY, METALLIC		**007440-36-0**							
LOAEL 0 35 MG SB/KG/DAY		RAT							
	ORAL DRINKING WATER	LIFETIME	WHOLE BODY	INCREASED MORTALITY		4E-4		IRIS	005170
			BLOOD	ALTERED CHEMISTRIES		1000			
ARAMITE		**000140-57-8**							
NOAEL 100 PPM		RAT							
	ORAL DIET	104 WEEKS	LIVER	INCREASED WEIGHT				5E-2	005850
								100	
NOAEL 500 PPM		DOG							
	ORAL DIET	52 WEEKS	LIVER	DEGENERATION		1E-1			005849
						I00			
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
AROCLOR 1248		**012672-29-6**							
								IRIS	
CHRONIC RfD COMMENT THE CHRONIC ORAL RfD IS CONSIDERED NOT VERIFIABLE (07/20/93) BY THE RfD/RfC WORK GROUP									010940
AROCLOR 1254		**011097-69-1**							
LOAEL 0 005 MG/KG/DAY									
	ORAL. CAPSULE	MONKEY >5 YEARS	IMMUNE SYSTEM	TOXICITY		5E-5		IRIS	010963
						100			
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD]									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ARSENIC, INORGANIC		**007440-38-2**							
NOAEL 0 009 MG/L		HUMAN							
	ORAL		SKIN	KERATOSIS		3E-4		IRIS	010434
			SKIN	HYPERPIGMENTATION		3			
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY									
ATRAZINE		**001912-24-9**							
NOEL 3.5 MG/KG/DAY		RAT							
	ORAL DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		3.5E-2		IRIS	010855
						100			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
BARIUM		**007440-39-3**							
NOAEL 0.21 MG/KG/DAY		HUMAN							
	ORAL WATER	10 WEEKS	CARDIOVASCULAR SYSTEM	INCREASED BLOOD PRESSURE		7E-2		IRIS	010348
						3			
SUBCHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
CHRONIC [RfC] COMMENT· ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
BARIUM CYANIDE		**000542-62-1**							
CHRONIC [RfD] COMMENT· THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/20/93) BY THE RfD/RfC WORK GROUP									010941

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BENEFIN		**001861-40-1**							
NOAEL 25 MG/KG/DAY		DOG							
	ORAL: DIET	1 YEAR	ERYTHROCYTE	DECREASED COUNT		3E-1		IRIS	005852
						100			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
BENZAL CHLORIDE		**000098-87-3**							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.									005853
BENZALDEHYDE		**000100-52-7**							
NOEL 200 MG/KG/DAY		RAT							
	ORAL · GAVAGE	13 WEEKS	KIDNEY	EFFECTS		1E+0		IRIS	005854
			FORESTOMACH	LESIONS		100			
SUBCHRONIC [RfD] CPMMENT THE CHRONIC ORAL RfD WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD].									
BENZALDEHYDE CYANOHYDRIN		**000532-28-5**							
GENERAL COMMENT · DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005781
BENZENE		**000071-43-2**							
SUBCHRONIC [RfC] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300									
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									
BENZENETHIOL / (THIOPHENOL)		**000108-98-5**							
LOAEL 0.1 MG/(KG-DAY)		RAT							
	ORAL · GAVAGE	90 DAYS	LIVER	CENTRILOBULAR EOSINOPHILIC		1E-4		1E-5	010942
				CHANGES		1000		10.000	
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL [RfD] UNDER REVIEW BY THE RfD/RfC WORKGROUP WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD]									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BENZIDINE		**000092-87-5**							
LOAEL 2 7 MG/KG/DAY		MOUSE							
	ORAL: DRINKING WATER	33 MONTHS	BRAIN	CELLULAR CHANGES		3E-3		IRIS	005830
			LIVER	CELLULAR CHANGES		1000			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT ALSO SEE HEAST TABLE 3· CARCINOGENICITY									
							IRIS		010877
CHRONIC RfC COMMENT· THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (03/28/91) BY THE RfD/RfC WORK GROUP.									
BENZO[A]ANTHRACENE		**000056-55-3**							
CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/04/94) BY THE RfD/RfC WORK GROUP									010965
GENERAL COMMENT· ALSO SEE HEAST TABLE 3· CARCINOGENICITY									
BENZOIC ACID		**000065-85-0**							
NOAEL 312 MG/DAY		HUMAN							
	ORAL DIET			NONE OBSERVED		4E+0 1		IRIS	005260
SUBCHRONIC [RfD] COMMENT THE HUMAN DAILY PER CAPITA INTAKE WAS USED AS THE CRITICAL DOSE LEVEL THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
CHRONIC [RfD] COMMENT. THE HUMAN DAILY PER CAPITA INTAKE WAS USED AS THE CRITICAL DOSE LEVEL									
BENZYL ALCOHOL		**000100-51-6**							
LOAEL 286 MG/KG/DAY		RAT							
	ORAL GAVAGE	103 WEEKS	FORESTOMACH	EPITHELIAL HYPERPLASIA				3E-1 1000	005855
NOAEL 143 MG/KG/DAY		RAT							
	ORAL. GAVAGE	13 WEEKS	WHOLE BODY	DECREASED WEIGHT		1E+0 100			005856

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BERYLLIUM		**007440-41-7**							
NOAEL 0 54 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	LIFETIME		NONE OBSERVED		5E-3 100		IRIS	005262
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT. ALSO SEE HEAST TABLE 3: CARCINOGENICITY									
BIPHENYL, 1,1'		**000092-52-4**							
NOAEL 50 MG/KG/DAY		RAT							
	ORAL · DIET	700 DAYS	KIDNEY	DAMAGE		5E-2 1000		IRIS	005857
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
							IRIS		010878
CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (09/20/90) BY THE RfD/RfC WORK GROUP									
BIS(2-CHLOROISOPROPYL) ETHER		**039638-32-9**							
NOAEL 35 8 MG/KG/DAY		MOUSE							
	ORAL DIET	2 YEARS	ERYTHROCYTES	DECREASED HEMOGLOBIN		4E-2 1000		IRIS	010257
BIS(2-ETHYLHEXYL) PHTHALATE / (DEHP)		**000117-81-7**							
								IRIS	010859
SUBCHRONIC [RfC] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300.									
SUBCHRONIC [RfD] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300									
GENERAL COMMENT ALSO SEE HEAST TABLE 3· CARCINOGENICITY									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) / UF	Subchronic [RfD] (mg/kg/day) / UF	Chronic [RfC] (mg/cu m) / UF	Chronic [RfD] (mg/kg/day) / UF	REFERENCE
BISPHENOL A		**000080-05-7**							
								IRIS	005268
NOAEL 750 PPM		RAT							
	ORAL	13 WEEKS	WHOLE BODY	DECREASED WEIGHT		6E-1			005266
						100			
BORON TRIFLUORIDE		**007637-07-2**							
NOAEL 6 MG/CU M		RAT							
	INHALATION	13 WEEKS	KIDNEY	NECROSIS	7E-3		7E-4		010395
	INTERMITTENT				300		3000		
BORON, ELEMENTAL		**007440-42-8**							
NOAEL 8 8 MG/KG/DAY		DOG							
	ORAL: DIET	2 YEARS	TESTIS	LESIONS				IRIS	005272
	SUBCHRONIC [RfD] COMMENT. THE SUBCHRONIC ORAL [RfD] WAS REMOVED BECAUSE THE CHRONIC ORAL RfD UPON WHICH IT WAS BASED IS UNDER REVIEW BY THE RfD/RfC WORK GROUP.								
	CHRONIC RfD COMMENT: THE CHRONIC ORAL RfD, WHILE STILL ON IRIS, IS BEING RECONSIDERED BY THE RfD/RfC WORK GROUP								
LOAEL 4.5 MG/CU M		HUMAN							
	INHALATION		RESPIRATORY	IRRITATION	2E-2		2E-2		005269
	INTERMITTENT		TRACT		100		100		
			BRONCHUS	BRONCHITIS					
	SUBCHRONIC [RfC] COMMENT THE SUBCHRONIC INHALATION [RfC] IS SPECIFICALLY FOR ANHYDROUS BORAX								
	CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS SPECIFICALLY FOR ANHYDROUS BORAX								
BROMINATED DIBENZO-P-DIOXINS									
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005858

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BROMINATED DIBENZOFURANS							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005859
BROMOACETONE 000598-31-2							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.							005860
BROMOCHLOROETHANES							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005861
BROMODICHLOROMETHANE 000075-27-4							
LOAEL 17.9 MG/KG/DAY MOUSE							
ORAL GAVAGE 102 WEEKS	KIDNEY	CYTOMEGALY		2E-2		IRIS	005715
				1000			
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].							
BROMOETHENE / (VINYL BROMIDE) 000593-60-2							
LOAEL 9 7 PPM RAT							
INHALATION 24 MONTHS	LIVER	HYPERTROPHY	3E-3		IRIS		010929
INTERMITTENT	LIVER	BASOPHILIC FOCI	3000				
	LIVER	EOSINOPHILIC FOCI					
SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]							
GENERAL COMMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY							

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BROMOFORM		**000075-25-2**							
NOEL 17.9 MG/KG/DAY		RAT							
	ORAL GAVAGE	13 WEEKS	LIVER	EFFECTS		2E-1 100		IRIS	005722
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
							IRIS		010961
CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (02/11/93) BY THE RfD/RfC WORK GROUP									
BROMOMETHANE		**000074-83-9**							
								IRIS	010861
							IRIS		010860
SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300									
SUBCHRONIC [RfD] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300									
BROMOPHENYL PHENYL ETHER, 4-		**000101-55-3**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005864
BROMOPHOS		**002104-96-3**							
NOAEL 5 MG/KG/DAY		RAT							
	ORAL DIET	3 GENERATIONS	BLOOD	DECREASED CHOLINESTERASE ACTIVITY		5E-2 100		5E-3 1000	005865
			LIVER	DECREASED CHOLINESTERASE ACTIVITY					
SUBCHRONIC [RfD] COMMENT. BASED ON A REPRODUCTION STUDY									
CHRONIC [RfD] COMMENT BASED ON A REPRODUCTION STUDY									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BROMOXYNIL		**001689-84-5**							
NOEL	5 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS		NONE OBSERVED		2E-2 300		IRIS	005866
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
BROMOXYNIL OCTANOATE		**001689-99-2**							
NOEL	7.3 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS		NONE OBSERVED		2E-2 300		IRIS	005867
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
BUSAN 77		**031512-74-0**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005868
BUSAN 90		**002491-38-5**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005869
BUTANOL, 1-		**000071-36-3**							
NOAEL	125 MG/KG/DAY	RAT							
	ORAL: GAVAGE	13 WEEKS	CENTRAL NERVOUS SYSTEM	HYPOACTIVITY		1E+0 100		IRIS	005870
			CENTRAL NERVOUS SYSTEM	ATAXIA					

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
BUTYL BENZYL PHTHALATE, N- **000085-68-7**									
NOAEL 159 MG/KG/DAY		RAT							
	ORAL: DIET	26 WEEKS	LIVER	ALTERED WEIGHT		2E+0 100		IRIS	005616
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
BUTYLATE **002008-41-5**									
NOEL 5 MG/KG/DAY		DOG							
	ORAL: CAPSULE	12 MONTHS	LIVER	INCREASED RELATIVE WEIGHT		5E-2 100		IRIS	005871
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
BUTYLCHLORIDE, T- **000507-20-0**									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.									005810
BUTYROLACTONE, GAMMA- **000096-48-0**									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.									005872
CACODYLIC ACID **000075-60-5**									
NOEL 9.2 MG/KG/DAY		RAT							
	ORAL: DIET	90 DAYS		NONE OBSERVED		3E-2 300		3E-3 3000	005873
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO ARSENIC BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO ARSENIC BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.									
CADMIUM **007440-43-9**									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.							IRIS	005280	

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CALCIUM CYANIDE		**000592-01-8**							
NOAEL 19.1 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		4E-2		IRIS	010258
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
CAPROLACTAM		**000105-60-2**							
								IRIS	005284
NOAEL 50 MG/KG/DAY		RAT							
	ORAL: DIET	90 DAYS	KIDNEY	EFFECTS		5E-1			005282
						100			
							IRIS		010966
CAPTAFOL		**002425-06-1**							
LOAEL 2 MG/KG/DAY		DOG							
	ORAL: CAPSULE	12 MONTHS	KIDNEY	EFFECTS		2E-3		IRIS	005874
			BLADDER	EFFECTS		1000			

SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.

SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CAPTAN		**000133-06-2**							
NOEL	12.5 MG/KG/DAY	RAT							
	ORAL: DIET		WHOLE BODY	DECREASED WEIGHT		1.3E-1		IRIS	005875
						100			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (05/27/92) BY THE RfD/RfC WORK GROUP.								
	CHRONIC [RfD] COMMENT: BASED ON A MULTI-GENERATION REPRODUCTION STUDY.								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
CARBARYL		**000063-25-2**							
NOAEL	9.6 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS	KIDNEY	TOXICITY		1E-1		IRIS	005876
			LIVER	TOXICITY		100			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
							IRIS		010882
	CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (08/15/91) BY THE RfD/RfC WORK GROUP.								
CARBOFURAN		**001563-66-2**							
NOEL	0.5 MG/KG/DAY	DOG							
	ORAL: DIET	1 YEAR	BLOOD	CHOLINESTERASE INHIBITION		5E-3		IRIS	005877
			TESTIS	EFFECTS		100			
			UTERUS	EFFECTS					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CARBON DISULFIDE		**000075-15-0**							
NOEL	11 MG/KG/DAY	RABBIT							
	INHALATION:		FETUS	TOXICITY		1E-1		IRIS	010259
	INTERMITTENT					100			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	CHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS DETERMINED FROM A TERATOLOGY STUDY WITH EXPOSURES BEFORE AND DURING THE ENTIRE GESTATION PERIOD.								
BMC	19.7 MG/CU M	HUMAN OCCUPATIONAL							
	INHALATION:	12.1 +/-	PERIPHERAL	DYSFUNCTION	7E-1		IRIS		010975
	INTERMITTENT	6.9 YEARS	NERVOUS SYSTEM		30				
	CHRONIC RfC COMMENT: A BENCHMARK DOSE APPROACH WAS USED RATHER THAN A NOAEL/LOAEL TO DERIVE THE RfC.								
	SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC].								
CARBON MONOXIDE		**000630-05-0**							
	CHRONIC [RfC] COMMENT: REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS.								010493
CARBON TETRACHLORIDE		**000056-23-5**							
								IRIS	010862
	SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.								
	SUBCHRONIC [RfD] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
CHLORAL		**000075-87-6**							
	LOAEL 15.7 MG/KG/DAY	MOUSE							
	ORAL: DRINKING WATER	90 DAYS	LIVER	EFFECTS		2E-2		IRIS	005290
						1000			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLORDANE		**000057-74-9**							
NOEL	0.055 MG/KG/DAY	RAT							
	ORAL: DIET	130 WEEKS	LIVER	HYPERTROPHY		6E-5 1000		IRIS	005296
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
CHLORINE CYANIDE		**000506-77-4**							
NOAEL	25.3 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		5E-2		IRIS	010261
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
CHLORO-1,3-BUTADIENE, 2- / (CHLOROPRENE)		**000126-99-8**							
NOAEL	32 PPM	RAT							
	INHALATION	90 DAYS	OLFACTORY	DEGENERATION	7E-2		7E-3		010515
			EPITHELIUM		30		300		
	SUBCHRONIC [RfD] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
	CHRONIC [RfD] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
CHLORO-M-CRESOL, P-		**000059-50-7**							
NOAEL	200 MG/KG/DAY	RAT							
	ORAL: GAVAGE	28 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		2E+0 100			005366
CHLOROACETALDEHYDE		**000107-20-0**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005342

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLOROACETIC ACID		**000079-11-8**							
LOAEL 30 MG/KG		RAT							
	ORAL: GAVAGE	13 WEEKS	HEART	MYOCARDITIS		2E-2 1000		2E-3 10000	005346
CHLOROANILINE, 2-		**000095-51-2**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005347
CHLOROANILINE, 3-		**000108-42-9**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005348
CHLOROANILINE, 4-		**000106-47-8**							
LOAEL 12.5 MG/KG/DAY		RAT							
	ORAL: DIET	78 WEEKS	SPLEEN	PROLIFERATIVE LESIONS		4E-3 3000		IRIS	005349
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
CHLOROBENZENE		**000108-90-7**							
								IRIS	010863
	SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.								
	CHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLOROBENZILATE		**000510-15-6**							
NOEL	5 MG/KG/DAY	RABBIT							
	ORAL: GAVAGE	13 DAYS	GASTRO-INTESTINAL SYSTEM	DECREASED STOOL QUANTITY		2E-2 300		IRIS	010260
			WHOLE BODY	DECREASED FOOD CONSUMPTION					
			WHOLE BODY	DECREASED WEIGHT GAIN					
			NERVOUS SYSTEM	HYPERIRRITABILITY					
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]. BASED ON A TERATOLOGY STUDY WITH EXPOSURES DURING DAYS 7-19 OF GESTATION.									
CHRONIC [RfD] COMMENT: BASED ON A TERATOLOGY STUDY WITH EXPOSURES DURING DAYS 7-19 OF GESTATION.									010931
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (02/11/93) BY THE RfD/RfC WORK GROUP.									
CHLOROBENZOIC ACID, P-		**000074-11-3**							
NOAEL	26 MG/DAY	RAT							
	ORAL: DIET	5 MONTHS		NONE OBSERVED		2E+0 100		2E-1 1000	005360
CHLOROBENZOTRIFLUORIDE, 4-		**000098-56-6**							
NOAEL	15 MG/KG/DAY	RAT							
	ORAL: GAVAGE		KIDNEY	TUBULAR DEGENERATION		2E-1 100		2E-2 1000	005364
SUBCHRONIC [RfD] COMMENT: BASED ON A 2-GENERATION REPRODUCTION STUDY WITH EXPOSURES 4 WEEKS PRIOR TO MATING, DURING GESTATION, AND FOR 90 DAYS POST-WEANING.									
CHRONIC [RfD] COMMENT: BASED ON A 2-GENERATION REPRODUCTION STUDY WITH EXPOSURES 4 WEEKS PRIOR TO MATING, DURING GESTATION, AND FOR 90 DAYS POST-WEANING.									

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLOROBUTANE, 1- **000109-69-3**							
NOAEL 43 MG/KG/DAY RAT							
ORAL: GAVAGE 103 WEEKS	WHOLE BODY	INCREASED MORTALITY				4E-1	005808
	CENTRAL NERVOUS SYSTEM	EFFECTS				100	
	BLOOD	HEMATOLOGIC EFFECTS					
NOAEL 86 MG/KG/DAY RAT							
ORAL: GAVAGE 13 WEEKS	WHOLE BODY	DECREASED WEIGHT GAIN		9E-1			005806
	CENTRAL NERVOUS SYSTEM	EFFECTS		100			
	SPLEEN	HEMATOPOIESIS					
CHLOROBUTANE, 2- **000078-86-4**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.							005809
CHLOROCYCLOPENTADIENE **041851-50-7**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005297
CHLOROFORM **000067-66-3**							
LOAEL 12.9 MG/KG/DAY DOG							
ORAL: CAPSULE 7.5 YEARS	LIVER	LESIONS		1E-2 1000		IRIS	005372

SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].
GENERAL COMMENT. ALSO SEE HEAST TABLE 3. CARCINOGENICITY.
SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLOROMETHANE / (METHYL CHLORIDE) 000074-87-3									010005
SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
CHLORONITROBENZENE, M- 000121-73-3									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.									005879
CHLOROPHENOL, 2- 000095-57-8									
NOAEL 50 PPM		RAT							
	ORAL: DRINKING WATER		REPRODUCTION	REPRODUCTIVE EFFECTS	5E-2 100		IRIS		010436
SUBCHRONIC [RfD] COMMENT: BASED ON A REPRODUCTIVE STUDY WITH EXPOSURE 10 WEEKS PRIOR TO AND DURING MATING, GESTATION AND WEANING.									
CHRONIC [RfD] COMMENT: BASED ON A REPRODUCTIVE STUDY WITH EXPOSURE 10 WEEKS PRIOR TO AND DURING MATING, GESTATION AND WEANING.									
CHLOROPHENOL, 3- 000108-43-0									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005309
CHLOROPHENOL, 4- 000106-48-9									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005310
CHLOROPROPANE, 2- 000075-29-6									
NOAEL 91.4 MG/KG/DAY		RAT							
	INHALATION: INTERMITTENT	4 WEEKS	LIVER	EFFECTS	1E+0 100		1E-1 1000		010444
CHLOROTOLUENE, M- 000108-41-8									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.									005880

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLOROTOLUENE, O-		**000095-49-8**							
NOAEL	20 MG/KG/DAY	RAT							
	ORAL: GAVAGE	103 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		2E-1 100		IRIS	010167
CHLOROTOLUENE, P-		**000106-43-4**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								010200
CHLORPYRIFOS		**002921-88-2**							
NOEL	0.03 MG/KG/DAY	HUMAN							
	ORAL: CAPSULE	20 DAYS OR 9 DAYS	BLOOD	DECREASED CHOLINESTERASE ACTIVITY		3E-3 10		IRIS	005881
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
CHLORPYRIFOS METHYL		**005598-13-0**							
NOAEL	1 MG/KG/DAY	RAT							
	ORAL: DIET	3 GENERATIONS	REPRODUCTION	DECREASED FERTILITY		1E-2 100		1E-2 100	005882
		RAT 2 YEARS	LIVER	EFFECTS					
CHLOROTHALONIL		**001897-45-6**							
NOEL	1.5 MG/KG/DAY	DOG							
	ORAL: DIET	2 YEARS	KIDNEY	EFFECTS		1.5E-2 100		IRIS	005883
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLORTHIOPHOS		**060238-56-4**							
NOAEL 0.08 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS		NONE OBSERVED		8E-4 100		8E-4 100	005884
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHROMIUM(III)		**016065-83-1**							
NOEL 5 % (CR2O3)		RAT							
	ORAL: DIET	840 DAYS		NONE OBSERVED		1E+0 1000		IRIS	005731
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]. CHRONIC [RfC] COMMENT: INHALATION ISSUES ARE UNDER REVIEW BY THE RFD/RFC WORK GROUP. SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.									
CHROMIUM(VI)		**018540-29-9**							
NOAEL 2.4 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	1 YEAR		NONE OBSERVED		2E-2 100		IRIS	005522
CHRONIC [RfC] COMMENT: INHALATION ISSUES ARE UNDER REVIEW BY THE RFD/RFC WORK GROUP. SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.									
CHRYSENE		**000218-01-9**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT. ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									005885

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
COPPER		**007440-50-8**							
LOAEL 5.3 MG		HUMAN							
	ORAL	SINGLE DOSE	GASTRO-INTESTINAL SYSTEM	IRRITATION		1.3 MG/L		1.3 MG/L	005374
SUBCHRONIC [RfD] COMMENT: CURRENT DRINKING WATER STANDARD OF 1.3 MG/L. DWCD (1987) CONCLUDED TOXICITY DATA WERE INADEQUATE FOR CALCULATION OF AN RfD FOR COPPER.									
CHRONIC [RfD] COMMENT: CURRENT DRINKING WATER STANDARD OF 1.3 MG/L. DWCD (1987) CONCLUDED TOXICITY DATA WERE INADEQUATE FOR CALCULATION OF AN RfD FOR COPPER.									
COPPER CYANIDE		**000544-92-3**							
NOAEL 5 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	LIVER	HISTOPATHOLOGY		5E-2		IRIS	010262
			KIDNEY	HISTOPATHOLOGY		100			
			WHOLE BODY	DECREASED WEIGHT					
			ORGANS	DECREASED WEIGHT					
CRESOL, M- / (3-METHYLPHENOL)		**000108-39-4**							
NOAEL 50 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		5E-1		IRIS	005380
			NERVOUS SYSTEM	NEUROTOXICITY		100			
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
							IRIS		010888
CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CRESOL, O- / (2-METHYLPHENOL) 000095-48-7									
NOAEL 50 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		5E-1		IRIS	005384
			NERVOUS SYSTEM	NEUROTOXICITY		100			
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
							IRIS		010889
	CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP.								
CRESOL, P- / (4-METHYLPHENOL) 000106-44-5									
NOAEL 5 MG/(KG-DAY)		RABBIT							
	ORAL: GAVAGE	GESTATION DAYS 6-18	CENTRAL NERVOUS SYSTEM	HYPOACTIVITY		5E-3 1000		5E-3 1000	010516
			RESPIRATORY SYSTEM	DISTRESS					
			WHOLE BODY	MATERNAL DEATH					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
							IRIS		010890
	CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP.								
CUMENE 000098-82-8									
NOAEL 154 MG/KG/DAY		RAT							
	ORAL: GAVAGE	194 DAYS	KIDNEY	INCREASED WEIGHT		4E-1 300		IRIS	005392
NOAEL 105.1 PPM		RAT							
	INHALATION: INTERMITTENT	4 WEEKS	CENTRAL NERVOUS SYSTEM	INVOLVEMENT	9E-2 1000		9E-3 10000		005908
			NOSE	IRRITATION					

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CYANAZINE		**021725-46-2**							
NOEL	0.625 MG/KG/DAY	DOG							
	ORAL: DIET	1 YEAR	WHOLE BODY	DECREASED WEIGHT		2E-3		2E-3	010411
			BLOOD	INCREASED PLATELET COUNT		300		300	
			BLOOD	ALTERED CLINICAL CHEMISTRY PARAMETERS					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	CHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS WITHDRAWN FROM IRIS (07/01/92). UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE.								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
CYANIDE		**000057-12-5**							
NOAEL	10.8 MG/KG/DAY	RAT							
	ORAL: DIET	104 WEEKS	WHOLE BODY	DECREASED WEIGHT		2E-2		IRIS	005396
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	GENERAL COMMENT: THE CASRN FOR CN- IS 000057-12-5; THE CASRN FOR HCN IS 000074-90-8.								
CYANOGEN		**000460-19-5**							
NOAEL	21.6 MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		4E-2		IRIS	010263
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
	SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CYANOGEN BROMIDE		**000506-68-3**							
NOAEL 44 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		9E-2		IRIS	010264
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
	SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
CYCLOATE		**001134-23-2**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005886
CYCLOHEXANOL		**000108-93-0**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005887
CYCLOHEXYLAMINE		**000108-91-8**							
								IRIS	005400
NOAEL 30 MG/KG/DAY		RAT							
	ORAL: DIET	90 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		3E-1			005398
			TESTIS	DECREASED WEIGHT		100			
CYCLOPENTADIENE		**000542-92-7**							
									010494
	GENERAL COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DACTHAL		**001861-32-1**							
NOAEL 1	MG/KG/DAY	RAT							
	ORAL: DIET	2 YEARS	LUNG	EFFECTS		1E-2		IRIS	005888
			LIVER	EFFECTS		100			
			KIDNEY	EFFECTS					
			THYROID	EFFECTS					
			THYROID HORMONES	EFFECTS					
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
DALAPON		**000075-99-0**							
NOEL	8.45 MG/KG/DAY	RAT							
	ORAL DIET	2 YEARS	KIDNEY	INCREASED RELATIVE WEIGHT		3E-2		IRIS	005889
						300			
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO DALAPON SODIUM BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
DDT		**000050-29-3**							
NOEL	0.05 MG/KG/DAY	RAT							
	ORAL. DIET	27 WEEKS	LIVER	LESIONS		5E-4		IRIS	005408
						100			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DECABROMODIPHENYL ETHER		**001163-19-5**							
NOEL 1 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	LIVER	INCREASED WEIGHT		1E-2 100		IRIS	005891
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
DI-N-OCTYL PHTHALATE		**000117-84-0**							
LOAEL 175 MG/KG/DAY		RAT							
	ORAL: DIET	7-12 MONTHS	KIDNEY	INCREASED WEIGHT		2E-2		2E-2	010275
			LIVER	INCREASED WEIGHT		1000		1000	
			LIVER	INCREASED SGOT ACTIVITY					
			LIVER	INCREASED SGPT ACTIVITY					
DIAZINON		**000333-41-5**							
NOAEL 0.09 MG/KG/DAY		RAT							
	ORAL. DIET	35-42 DAYS	BLOOD	DECREASED CHOLINESTERASE ACTIVITY		9E-4 100		9E-4 100	005892
DIBENZOFURAN		**000132-64-9**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005409
DIBROMOBENZENE, 1,4-		**000106-37-6**							
NOAEL 10 MG/KG/DAY		RAT							
	ORAL· GAVAGE	45 OR 90 DAYS	LIVER	INCREASED RELATIVE WEIGHT		1E-1		IRIS	005893
			LIVER	ALTERED ENZYME ACTIVITIES		100			

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIBROMOCHLOROMETHANE		**000124-48-1**							
NOEL 21 4 MG/KG/DAY		RAT							
	ORAL: GAVAGE	13 WEEKS	LIVER	LESIONS		2E-1 100		IRIS	005894
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY									
DIBROMOETHANE, 1,2-		**000106-93-4**							
LOAEL 88 PPB		HUMAN							
	INHALATION: INTERMITTENT		SPERM	EFFECTS	2E-3 100		2E-4 1000		010854
SUBCHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] WAS MODIFIED TO ESTIMATE THE SUBCHRONIC INHALATION [RfC] CHRONIC [RfC] COMMENT. UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE. GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY									
DIBUTYL PHTHALATE		**000084-74-2**							
NOAEL 125 MG/KG/DAY		RAT							
	ORAL DIET	52 WEEKS	WHOLE BODY	INCREASED MORTALITY		1E+0 100		IRIS	005622
							IRIS		010892
CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (07/26/90) BY THE RfD/RfC WORK GROUP									
DICAMBA		**001918-00-9**							
NOAEL 3 MG/KG/DAY		RABBIT							
	ORAL GAVAGE	GESTATION DAYS 6-18	FETUS	DECREASED WEIGHT		3E-2 100		IRIS	010945
			FETUS	INCREASED POST-IMPLANTATION LOSSES					
			FETUS	INCREASED MORTALITY					
			DAM	DECREASED WEIGHT GAIN					
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROBENZENE, 1,2- 000095-50-1								IRIS	010864
GENERAL COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
DICHLOROBENZENE, 1,3- 000541-73-1									005414
CHRONIC [RfD] COMMENT. THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (06/23/92) BY THE RfD/RfC WORK GROUP									
DICHLOROBENZENE, 1,4- 000106-46-7									
NOAEL 75 MG/CU M		RAT							
INHALATION. INTERMITTENT		MULTI-GENERA TION	LIVER	INCREASED WEIGHT IN MALE PARENTS	2 5E+0 30		IRIS		010840
SUBCHRONIC [RfC] COMMENT. THE CHRONIC INHALATION RfC WAS MODIFIED TO ESTIMATE THE SUBCHRONIC INHALATION [RfC].									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
DICHLOROBUTENES									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005415
DICHLORODIFLUOROMETHANE 000075-71-8								IRIS	005498
NOAEL 90 MG/KG/DAY		DOG							
ORAL: DIET		90 DAYS		NONE OBSERVED		9E-1 100			005496
SUBCHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2. ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROETHANE, 1,1- 000075-34-3									
NOEL 115 MG/KG/DAY		RAT							
	INHALATION INTERMITTENT	13 WEEKS		NONE OBSERVED		1E+0 100		1E-1 1000	005790
SUBCHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
SUBCHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION									
CHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION									
GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
DICHLOROETHYLENE, 1,1- 000075-35-4									
LOAEL 9 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	2 YEARS	LIVER	LESIONS		9E-3 1000		IRIS	005419
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT: UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.									
GENERAL COMMENT· ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
DICHLOROETHYLENE, 1,2- (MIXED ISOMERS) 000540-59-0									
LOAEL 50 PPM		RAT							
	ORAL· DRINKING WATER	2 YEARS	LIVER	LESIONS		9E-3 1000		9E-3 1000	010509
SUBCHRONIC [RfD] COMMENT. VALUES DERIVED FOR 1,1-DICHLOROETHYLENE WERE ADOPTED FOR 1,2- DICHLOROETHYLENE MIXED ISOMERS BASED ON ANALOGY.									
CHRONIC [RfD] COMMENT VALUES DERIVED FOR 1,1-DICHLOROETHYLENE (000075-35-4) WERE ADOPTED FOR 1,2-DICHLOROETHYLENE MIXED ISOMERS BASED ON ANALOGY.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROETHYLENE, 1,2-C- 000156-59-2									
NOAEL 32 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	BLOOD	DECREASED HEMATOCRIT		1E-1		1E-2	005420
			BLOOD	DECREASED HEMOGLOBIN		300		3000	
CHRONIC [RfD] COMMENT: UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE.									
DICHLOROETHYLENE, 1,2-T- 000156-60-5									
NOAEL 17 MG/KG/DAY		MOUSE							
	ORAL: DRINKING WATER	90 DAYS	BLOOD	INCREASED ALKALINE PHOSPHATASE		2E-1 100		IRIS	005895
DICHLOROPHENOL, 2,3- 000576-24-9									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005315
DICHLOROPHENOL, 2,4- 000120-83-2									
NOEL 3 PPM		RAT							
	ORAL: DRINKING WATER	2 GENERATIONS	IMMUNE SYSTEM	ALTERED IMMUNE FUNCTION		3E-3 100		IRIS	005314
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT: BASED ON A 2-GENERATION REPRODUCTION STUDY WITH EXPOSURES BEFORE AND DURING GESTATION, PARTURITION, AND WEANING OF PUPS.									
DICHLOROPHENOL, 2,5- 000583-78-8									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005316
DICHLOROPHENOL, 2,6- 000087-65-0									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005317

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROPHENOL, 3,4- **000095-77-2**									
GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005318
DICHLOROPHENOL, 3,5- **000591-35-5**									
GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005319
DICHLOROPHENOXY ACETIC ACID, 2,4- **000094-75-7**									
NOAEL 1 MG/KG/DAY	ORAL: DIET	RAT 91 DAYS	BLOOD	TOXICITY		1E-2		IRIS	010265
			LIVER	TOXICITY		100			
			KIDNEY	TOXICITY					
SUBCHRONIC [RfD] COMMENT:	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
DICHLOROPHENOXY) BUTYRIC ACID, 4-(2,4- / (2,4-DB) **000094-82-6**									
NOAEL 8 MG/KG/DAY	ORAL: DIET	DOG 90 DAYS	CARDIOVASCULAR SYSTEM	HEMORRHAGE		8E-2 100		IRIS	005890
			WHOLE BODY	INCREASED MORTALITY					
DICHLOROPROPANE, 1,1- **000078-99-9**									
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005897
DICHLOROPROPANE, 1,2- **000078-87-5**									
NOAEL 69.3 MG/CU	INHALATION. INTERMITTENT	RAT 13 WEEKS	NASAL MUCOSA	HYPERPLASIA	1 3E-2 100		IRIS		005898
GENERAL COMMENT	ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								

CHEMICAL LEVEL / DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROPROPANE, 1,3- **000142-28-9**								
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005899
DICHLOROPROPANE, 2,2- **000594-20-7**								
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005900
DICHLOROPROPENE, 1,3- / (TELONE II) **000542-75-6**								
NOEL 3 MG/KG/DAY	RAT							
ORAL. DIET	90 DAYS	ORGANS	INCREASED WEIGHT		3E-3 1000		IRIS	005901
GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY.								
NOAEL 5 PPM	MOUSE							
INHALATION:	2 YEARS	NASAL MUCOSA	HYPERTROPHY	2E-2		IRIS		010351
INTERMITTENT		NASAL MUCOSA	HYPERPLASIA	30				
SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC].								
DICHLORPROP **000120-36-5**								
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								005896
DICYCLOPENTADIENE **000077-73-6**								
NOEL 32 MG/KG/DAY	RAT							
ORAL: DIET	3 GENERATIONS		NONE OBSERVED		3E-1 100		3E-2 1000	005425
SUBCHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
SUBCHRONIC [RfD] COMMENT: BASED ON A 3-GENERATION REPRODUCTION STUDY.								
CHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
CHRONIC [RfD] COMMENT: BASED ON A 3-GENERATION REPRODUCTION STUDY.								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIELDRIN		**000060-57-1**							
NOAEL 0.005 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	LIVER	LESIONS		5E-5 100		IRIS	005429
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY.								
DIETHYL PHTHALATE		**000084-66-2**							
NOAEL 750 MG/KG/DAY		RAT							
	ORAL: DIET	16 WEEKS	WHOLE BODY	DECREASED GROWTH		8E+0		IRIS	005620
			ORGANS	DECREASED WEIGHT		100			
DIETHYL-P-NITROPHENYL PHOSPHATE		**000311-45-5**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005922
DIETHYLANILINE, N,N-		**000091-66-7**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005903
DIETHYLENE GLYCOL MONOBUTYL ETHER		**000112-34-5**							
NOAEL 18 PPM		RAT							
				NONE OBSERVED	2E-1 100		2E-2 1000		005482
	CHRONIC [RfC] COMMENT: UNDER REVIEW								

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIETHYLENE GLYCOL MONOETHYL ETHER 000111-90-0									
NOEL	200 MG/KG/DAY	RAT							
	ORAL. DRINKING WATER		KIDNEY	HISTOPATHOLOGY				2E+0 100	005478
	CHRONIC [RfD] COMMENT. BASED ON A 3-GENERATION REPRODUCTION STUDY.								
NOEL	500 MG/KG/DAY	RAT							
	ORAL· DIET	90 DAYS	KIDNEY TESTIS	IMPAIRED FUNCTION INCREASED WEIGHT		5E+0 100			005476
DIETHYLFORMAMIDE 000617-84-5									
NOEL	0.546 MG/DAY, 5 DAYS/WEEK	RAT							
	ORAL GAVAGE	73 WEEKS		NONE OBSERVED		1.1E-2 100		1 1E-2 100	010437
DIETHYLHYDRAZINE, 1,2- 001615-80-1									
	GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT. ALSO SEE HEAST TABLE 3. CARCINOGENICITY								005921
DIMETHOATE 000060-51-5									
NOEL	0.05 MG/KG/DAY	RAT							
	ORAL. DIET	2 YEARS	BRAIN	DECREASED CHOLINESTERASE ACTIVITY		2E-4 300		IRIS	005923
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
DIMETHYLANILINE, N,N- 000121-69-7									
LOAEL	22.32 MG/KG/DAY	MOUSE							
	ORAL· GAVAGE	13 WEEKS	SPLEEN	EFFECTS		2E-2 1000		IRIS	005924

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIMETHYLFORMAMIDE, N,N- 000068-12-2									
NOAEL	96 MG/KG/DAY	RAT							
	ORAL: DIET	119 DAYS	LIVER	EFFECTS		1E+0 100		1E-1 1000	005925
LOAEL	22 MG/CU M	HUMAN							
	INHALATION: INTERMITTENT		LIVER GASTRO INTESTINAL SYSTEM	EFFECTS EFFECTS	3E-2 300		IRIS		010352
	SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RFC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RFC].								
DIMETHYLPHENOL, 2,3- 000526-75-0									
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005926
DIMETHYLPHENOL, 2,4- 000105-67-9									
NOAEL	50 MG/KG/DAY	MOUSE							
	ORAL: GAVAGE	90 DAYS	NERVOUS SYSTEM BLOOD	EFFECTS ALTERATIONS		2E-1 300		IRIS	010266
DIMETHYLPHENOL, 2,5- 000095-87-4									
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005928
DIMETHYLPHENOL, 2,6- 000576-26-1									
NOEL	0 6 MG/KG/DAY	RAT							
	ORAL	8 MONTHS	WHOLE BODY ORGANS, MAJOR	INCREASED WEIGHT LESIONS		6E-3 100		IRIS	005431

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIMETHYLPHENOL, 3,4-		**000095-65-8**							
NOEL	1.4 MG/KG/DAY	RAT							
	ORAL	8 MONTHS	WHOLE BODY	DECREASED WEIGHT		1E-2		IRIS	005437
			ORGANS, MAJOR	LESIONS		100			
			CARDIOVASCULAR SYSTEM	ALTERED BLOOD PRESSURE					
DIMETHYLPHTHALATE		**000131-11-3**							
	CHRONIC RfD COMMENT	THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (02/16/94) BY THE RfD/RfC WORK GROUP							010267
								IRIS	010894
	CHRONIC RfC COMMENT:	THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (07/26/90) BY THE RfD/RfC WORK GROUP.							
DIMETHYLTEREPHTHALATE		**000120-61-6**							
LOAEL	125 MG/KG/DAY	RAT							
	ORAL, DIET	103 WEEKS	KIDNEY	INFLAMMATION		1E-1		IRIS	005930
						1000			
	SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]							
DIMETHYLUREA, N,N-		**000598-94-7**							
	GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005931
DINITRO-O-CRESOL, 4,6-		**000534-52-1**							
	CHRONIC [RfC] COMMENT:	THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (02/11/93) BY THE RfD/RfC WORK GROUP.							010470
DINITRO-P-CRESOL, 2,6-		**000609-93-8**							
	GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005934

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) / UF	Subchronic [RfD] (mg/kg/day) / UF	Chronic [RfC] (mg/cu m) / UF	Chronic [RfD] (mg/kg/day) / UF	REFERENCE
DINITROBENZENE, 1,2-		**000528-29-0**							
NOAEL 0.4 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	16 WEEKS	SPLEEN	INCREASED WEIGHT		4E-3 100		4E-4 1000	010201
	SUBCHRONIC [RfD] COMMENT: DERIVED BY ANALOGY TO 1,3-DINITROBENZENE.								
	CHRONIC [RfD] COMMENT DERIVED BY ANALOGY TO 1,3-DINITROBENZENE								
DINITROBENZENE, 1,3-		**000099-65-0**							
NOAEL 0.4 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER		SPLEEN	INCREASED WEIGHT		1E-3 100		IRIS	010471
DINITROBENZENE, 1,4-		**000100-25-4**							
NOAEL 0.4 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	16 WEEKS	SPLEEN	INCREASED WEIGHT		4E-3 100		4E-4 1000	010202
	SUBCHRONIC [RfD] COMMENT DERIVED BY ANALOGY TO 1,3-DINITROBENZENE								
	CHRONIC [RfD] COMMENT· DERIVED BY ANALOGY TO 1,3-DINITROBENZENE.								
DINITROPHENOL, 2,3-		**000066-56-8**							
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005936
DINITROPHENOL, 2,4-		**000051-28-5**							
LOAEL 2 MG/KG/DAY		HUMAN							
	ORAL		EYE	CATARACT		2E-3 1000		IRIS	010438
	SUBCHRONIC [RfD] COMMENT· THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
							IRIS		010895
	CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (06/13/91) BY THE RfD/RfC WORK GROUP								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DINITROPHENOL, 2,5-		**000329-71-5**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005937
DINITROPHENOL, 2,6-		**000573-56-8**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005938
DINITROPHENOL, 3,5-		**000586-11-8**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005939
DINITROTOLUENE, 2,3-		**000602-01-7**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005940
DINITROTOLUENE, 2,4-		**000121-14-2**							
NOAEL 0.2 MG/KG/DAY		DOG							
ORAL GELATIN CAPSULE		UP TO 2 YEARS	CENTRAL NERVOUS SYSTEM	NEUROTOXICITY		2E-3 100		IRIS	005941
			ERYTHROCYTES	HEINZ BODIES					
			BILIARY TRACT	HYPERPLASIA					
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD IS ADOPTED AS THE SUBCHRONIC ORAL [RfD] GENERAL COMMENT. ALSO SEE HEAST TABLE 3. CARCINOGENICITY									
							IRIS		010896
CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/20/90) BY THE RfD/RfC WORK GROUP									
DINITROTOLUENE, 2,5-		**000619-15-8**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005942

CHEMICAL LEVEL / DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DINITROTOLUENE, 2,6- **000606-20-2**								
NOAEL 4 MG/KG/DAY	DOG							
ORAL: DIET	13 WEEKS	WHOLE BODY	MORTALITY		1E-2		1E-3	005943
		CENTRAL NERVOUS SYSTEM	NEUROTOXICITY		300		3000	
		BLOOD	HEINZ BODIES					
		BLOOD	METHEMOGLOBINEMIA					
		BILE DUCT	HYPERPLASIA					
		KIDNEY	HISTOPATHOLOGY					
CHRONIC [RfD] COMMENT: UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE								
GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
DINITROTOLUENE, 3,4- **000610-39-9**								
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005944
DINOSEB **000088-85-7**								
LOAEL 1 MG/KG/DAY	RAT							
ORAL: DIET	29 WEEKS	FETUS	DECREASED WEIGHT		1E-3 1000		IRIS	005945
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RFD WAS ADOPTED AS THE SUBCHRONIC ORAL [RFD].								
CHRONIC [RfD] COMMENT. THE CHRONIC ORAL RFD WAS DETERMINED FROM A 3-GENERATION REPRODUCTION STUDY.								
DIPHENYLAMINE, N,N- **000122-39-4**								
NOEL 2.5 MG/KG/DAY	DOG							
ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		2 5E-2		IRIS	005946
		LIVER	INCREASED WEIGHT		100			
		KIDNEY	INCREASED WEIGHT					
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DIRECT LIGHTFAST BLUE		**004399-55-7**							
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005947
DISULFOTON		**000298-04-4**							
LOAEL 0.04 MG/KG/DAY		RAT							
	ORAL DIET	2 YEARS	EYE	DEGENERATION		4E-5		IRIS	010412
			BLOOD	CHOLINESTERASE INHIBITION		1000			
SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
ENDOSULFAN		**000115-29-7**							
NOAEL 15 PPM		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		6E-3		IRIS	010926
			KIDNEY	GLOMERULONEPHROSIS		100			
			BLOOD VESSEL	ANEURYSMS					
NOAEL 10 PPM		DOG							
	ORAL: DIET	1 YEAR	WHOLE BODY	DECREASED WEIGHT GAIN					010938
SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHORNIC ORAL [RfD] BASED ON CO-CRITICAL RAT AND DOG STUDIES.								
ENDOTHALL		**000145-73-3**							
NOEL 2 MG/KG/DAY		DOG							
	ORAL DIET	2 YEARS	STOMACH	INCREASED WEIGHT		2E-2		IRIS	005948
			SMALL INTESTINE	INCREASED WEIGHT		100			
SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ENDRIN		**000072-20-8**							
NOEL	0 025 MG/KG/DAY	DOG							
	ORAL: DIET	2 YEARS	CENTRAL NERVOUS SYSTEM	CONVULSIONS		3E-4 100		IRIS	005445
			LIVER	LESIONS					
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
EPICHLOROHYDRIN		**000106-89-8**							
LOAEL	37.8 MG/CU M	RAT							
	INHALATION: INTERMITTENT	136 WEEKS	KIDNEY	LESIONS		2E-3 1000		2E-3 1000	010440
	SUBCHRONIC [RfD] COMMENT: BASED ON ROUTE-TO-ROUTE EXTRAPOLATION. THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]. CHRONIC [RfD] COMMENT: WITHDRAWN FROM IRIS (04/01/92) GENERAL COMMENT: ALSO SEE HEAST TABLE 3· CARCINOGENICITY								
NOAEL	19 MG/CU M	RAT							
	INHALATION. INTERMITTENT	90 DAYS	NASAL EPITHELIUM	LESIONS		1E-2 100		IRIS	010492
EPTC		**000759-94-4**							
NOEL	2.5 MG/KG/DAY	RAT							
	ORAL DIET	2 GENERATIONS	HEART	DEGENERATIVE CARDIOMYOPATHY		2 5E-2 100		IRIS	005959
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] CHRONIC [RfD] COMMENT: THE CHRONIC ORAL RFD WAS DETERMINED FROM A 2-GENERATION REPRODUCTION STUDY.								
ETHOPROP		**013194-48-4**							
	GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005951

CHEMICAL LEVEL / DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ETHOXYETHANOL ACETATE, 2- 000111-15-9								010507
SUBCHRONIC [RfD] COMMENT. ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
CHRONIC [RfD] COMMENT· ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
ETHOXYETHANOL ACRYLATE, 2- 000106-74-1								
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005953
ETHOXYETHANOL DODECANOATE, 2- 000106-13-8								
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005956
ETHOXYETHANOL PHOSPHATE, 2- 068554-00-7								
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005955
ETHOXYETHANOL, 2- 000110-80-5								
LOAEL 357 MG/KG/DAY ORAL: GAVAGE	RAT 103 WEEKS	WHOLE BODY	DECREASED WEIGHT				4E-1 1000	005470
NOEL 50 uL/KG/DAY ORAL· GAVAGE	RAT 21 DAYS	FETUS	SKELETAL MALFORMATIONS		5E-1 100			005468
SUBCHRONIC [RfD] COMMENT BASED ON A REPRODUCTION STUDY WITH EXPOSURES DURING DAYS 1-21 OF GESTATION								
NOAEL 380 MG/CU M INHALATION· INTERMITTENT	RABBIT 13 WEEKS	BLOOD	ALTERED HEMATOLOGY	2E+0 30		IRIS		010441
ETHOXYETHYL METHACRYLATE, 2- 002370-63-0								
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005954

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ETHYL ACETATE		**000141-78-6**							
NOEL	900 MG/KG/DAY	RAT							
	ORAL. GAVAGE	90 DAYS	WHOLE BODY	INCREASED MORTALITY		9E+0		IRIS	005957
			WHOLE BODY	DECREASED WEIGHT		100			
ETHYL BENZENE		**000100-41-4**							
								IRIS	010867
							IRIS		010866
SUBCHRONIC [RfC] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER· (513) 569-7300									
SUBCHRONIC [RfD] COMMENT· CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300.									
ETHYL CHLORIDE		**000075-00-3**							
NOAEL	1504 PPM	MOUSE							
	INHALATION	10 DAYS	FETUS	DEVELOPMENTAL TOXICITY	1E+1		IRIS		010371
	INTERMITTENT				300				
SUBCHRONIC [RfC] COMMENT. THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]									
CHRONIC [RfC] COMMENT BASED ON A DEVELOPMENTAL STUDY WITH EXPOSURES DURING DAYS 6-15 OF GESTATION.									
ETHYL ETHER		**000060-29-7**							
NOAEL	500 MG/KG/DAY	RAT							
	ORAL GAVAGE	90 DAYS	LIVER	EFFECTS		2E+0		IRIS	010396
						300			

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ETHYL METHACRYLATE		**000097-63-2**							
NOEL	7 5 MG/KG/DAY	RAT							
	ORAL · DRINKING WATER	2 YEARS	KIDNEY	INCREASED RELATIVE WEIGHT		9E-2 100		9E-2 100	005961
	CHRONIC [RfD] COMMENT. CALCULATED FROM METHYL METHACRYLATE DATA BY MULTIPLYING BY THE RATIO OF THE MOLECULAR WEIGHTS (114 5/100.13).								
ETHYL-O-XYLENE, 4-		**000934-80-5**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								010472
ETHYLANILINE, N-		**000103-69-5**							
	GENERAL COMMENT· DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005958
ETHYLENE CYANOHYDRIN		**000109-78-4**							
NOEL	30 MG/KG/DAY	RAT							
	ORAL DRINKING WATER	90 DAYS	HEART	DECREASED WEIGHT		3E-1		3E-1	005780
			BRAIN	DECREASED WEIGHT		100		100	
ETHYLENE DIAMINE		**000107-15-3**							
NOAEL	22 6 MG/KG/DAY	RAT							
	ORAL DIET	3 MONTHS	HEART	DECREASED WEIGHT		2E-1		2E-2	005796
			BLOOD	HEMATOLOGIC CHANGES		100		1000	
							IRIS		010898
	CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/18/90) BY THE RfD/RfC WORK GROUP.								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ETHYLENE GLYCOL		**000107-21-1**							
								IRIS	005454
NOEL	200 MG/KG/DAY	RAT							
	ORAL: DIET		FETUS	FETOTOXICITY		2E+0 100			005452
	SUBCHRONIC [RfD] COMMENT BASED ON A REPRODUCTION STUDY WITH EXPOSURES DURING DAYS 6-15 OF GESTATION.								
ETHYLENE GLYCOL MONOBUTYL ETHER		**000111-76-2**							
NOAEL	121 MG/CU M	RAT							
	INHALATION: INTERMITTENT	13 WEEKS	BLOOD	ALTERED HEMATOLOGY	2E-1 100		2E-2 1000		010353
	CHRONIC [RfC] COMMENT UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.								
ETHYLENE THIOUREA		**000096-45-7**							
LOAEL	0.25 MG/KG/DAY	RAT							
	ORAL: DIET	24 MONTHS	THYROID	HYPERPLASIA		8E-5 3000		IRIS	010397
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY								010899
	CHRONIC [RfC] COMMENT. THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/12/92) BY THE RfD/RfC WORK GROUP								
ETHYLTOLUENE, M-		**000620-14-4**							
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005963
ETHYLTOLUENE, O-		**000611-14-3**							
	GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005962

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ETHYLTOLUENE, P-		**000622-96-8**							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005964
FLUORANTHENE		**000206-44-0**							
NOAEL 125 MG/KG/DAY		MOUSE							
	ORAL · GAVAGE	90 DAYS	KIDNEY	NEPHROPATHY		4E-1		IRIS	010168
			LIVER	WEIGHT CHANGES		300			
			BLOOD	HEMATOLOGICAL CHANGES					
CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/04/94) BY THE RfD/RfC WORK GROUP.									010967
FLUORENE		**000086-73-7**							
NOAEL 125 MG/KG/DAY		MOUSE							
	ORAL GAVAGE	13 WEEKS	ERYTHROCYTES	DECREASED COUNTS		4E-1		IRIS	010169
						300			
FLUORINE / (SOLUBLE FLUORIDE)		**007782-41-4**							
NOAEL 0 06 MG/KG/DAY		HUMAN							
	ORAL: DRINKING WATER		TOOTH	FLUOROSIS		6E-2		IRIS	005965
						1			
FLURIDONE		**059756-60-4**							
NOEL 200 PPM		RAT							
	ORAL: DIET	2 YEARS	KIDNEY	GLOMERULONEPHRITIS		8E-2		IRIS	005966
			TESTIS	ATROPHY		100			
			WHOLE BODY	DECREASED WEIGHT					
			ORGANS	DECREASED WEIGHT					
SUBCHRONIC [RfD] COMMENT· THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
FOLPET		**000133-07-3**							
NOEL	10 MG/KG/DAY	DOG							
	ORAL: CAPSULE	1 YEAR	WHOLE BODY	ALTERED WEIGHT GAIN		1E-1		IRIS	005967
			BLOOD	ALTERED CHEMISTRY		100			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]. GENERAL COMMENT. ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
FORMALDEHYDE		***000050-00-0***							
NOAEL	15 MG/KG/DAY	RAT							
	ORAL: WATER	2 YEARS	GASTRO-INTESTINAL TRACT	LESIONS		2E-1 100		IRIS	010398
	GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.								
FORMALDEHYDE CYANOHYDRIN		**000107-16-4**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005782
FORMIC ACID		**000064-18-6**							
NOAEL	200 MG/KG/DAY	RAT							
	ORAL WATER	MULTI-GENERATION	WHOLE BODY	DECREASED GROWTH		2E+0 100		2E+0 100	010268
	CHRONIC [RfD] COMMENT BASED ON A MULTI-GENERATION STUDY. WITHDRAWN FROM IRIS (12/01/90) UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE								
FURAN		**000110-00-9**							
NOAEL	1.4 MG/KG/DAY	MOUSE							
	ORAL GAVAGE	13 WEEKS	LIVER	LESIONS		1E-2 100		IRIS	005462

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
FURFURAL		**000098-01-1**							
LOAEL 7 9 MG/KG/DAY		RAT							
	ORAL: GAVAGE	13 WEEKS	LIVER	HEPATOTOXICITY		3E-2 300		IRIS	005466
SUBCHRONIC [RfC] COMMENT. ALSO SEE HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfC] COMMENT· ALSO SEE HEAST TABLE 2. ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
GLYCIDALDEHYDE		**000765-34-4**							
NOAEL 29 MG/CU M		RAT							
	INHALATION.	12 WEEKS	WHOLE BODY	DECREASED WEIGHT	1E-2	4E-3	1E-3	IRIS	005968
	INTERMITTENT		KIDNEY	EFFECTS	300	300	3000		
SUBCHRONIC [RfD] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5.									
CHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5.									
GENERAL COMMENT ALSO SEE HEAST TABLE 3· CARCINOGENICITY.									
HEPTACHLOR		**000076-44-8**							
NOEL 0.15 MG/KG/DAY		RAT							
	ORAL. DIET	2 YEARS	LIVER	INCREASED WEIGHT		5E-4 300		IRIS	005506
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT. ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
HEPTACHLOR EPOXIDE		**001024-57-3**							
LOAEL 0.0125 MG/KG/DAY		DOG							
	ORAL DIET	60 WEEKS	LIVER	INCREASED RELATIVE WEIGHT		1 3E-5 1000		IRIS	010399
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
HEPTANE, N- 000142-82-5									
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005969
HEXABROMOBENZENE 000087-82-1									
NOAEL 2 MG/KG/DAY		RAT							
	ORAL: DIET	12 WEEKS	LIVER	INDUCED CARBOXYLESTERASE ACTIVITY		2E-2 100		IRIS	005970
HEXACHLOROBENZENE 000118-74-1									
								IRIS	010868
							IRIS		010900
CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (11/15/90) BY THE RfD/RfC WORK GROUP									
SUBCHRONIC [RfC] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300.									
GENERAL COMMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY.									
HEXACHLOROBUTADIENE 000087-68-3									
LOAEL 0.5 MG/KG/DAY		MOUSE							
	ORAL DIET	13 WEEKS	RENAL TUBULES	REGENERATION				2E-4 1000	010927
CHRONIC [RfD] COMMENT WITHDRAWN FROM IRIS (05/01/93) UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.									
SUBCHRONIC [RfD] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300.									
HEXACHLOROCYCLOHEXANE, DELTA- 000319-86-8									
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY									010495
HEXACHLOROCYCLOHEXANE, EPSILON- 006108-10-7									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT. ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									010496

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
HEXACHLOROCYCLOHEXANE, GAMMA- 000058-89-9									
NOAEL 0.33 MG/KG/DAY		RAT							
	ORAL: DIET	12 WEEKS	LIVER	TOXICITY		3E-3		IRIS	005537
			KIDNEY	TOXICITY		100			
GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									010903
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (05/27/92) BY THE RfD/RfC WORK GROUP.									
HEXACHLOROCYCLOPENTADIENE 000077-47-4									
NOAEL 7.1 MG/KG/DAY		RAT							
	ORAL	13 WEEKS	FORESTOMACH	LESIONS		7E-2		IRIS	005299
						100			
NOAEL 0.15 PPM		RAT							
	INHALATION:	13 WEEKS	NASAL CAVITY	SQUAMOUS METAPLASIA	7E-4		7E-5		010445
	INTERMITTENT				100		1000		
HEXACHLOROETHANE 000067-72-1									
NOAEL 1 MG/KG/DAY		RAT							
	ORAL: DIET	16 WEEKS	KIDNEY	DEGENERATION		1E-2		IRIS	005518
						100			
GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									010904
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (11/05/92), BY THE RfD/RfC WORK GROUP.									
HEXACHLOROPHENE 000070-30-4									
LOAEL 0 75 MG/KG/DAY		DOG							
	ORAL: DIET	13 WEEKS	NERVOUS SYSTEM	EFFECTS		3E-3		IRIS	005972
						300			

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
HEXAMETHYLENE DIAMINE **000124-09-4**							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005973
HEXANE, N- **000110-54-3**							
LOAEL 570 MG/KG/DAY RAT							
ORAL	NERVOUS SYSTEM	NEUROPATHY		6E-1		6E-2	005974
	TESTIS	ATROPHY		1000		10000	
LOAEL 73 MG/CU M HUMAN							
INHALATION	NERVOUS SYSTEM	NEUROTOXICITY	2E-1		IRIS		010273
INTERMITTENT			300				
SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]							
HEXANONE, 2- **000591-78-6**							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005976
HYDROGEN SULFIDE **007783-06-4**							
NOAEL 3 1 MG/KG/DAY PIG							
ORAL: FOOD 105 DAYS	GASTRO-INTESTINAL SYSTEM	DISTURBANCE		3E-2		IRIS	010269
				100			
NOAEL 42 MG/CU M MOUSE							
INHALATION: 13 WEEKS	NASAL MUCOSA	INFLAMMATION	1E-2		IRIS		010354
INTERMITTENT			100				

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
HYDROQUINONE		**000123-31-9**							
NOAEL 4.29 MG/KG/DAY		HUMAN							
	ORAL	3-5 MONTHS	BLOOD	HEMATOLOGICAL EFFECTS		4E-1		4E-2	005526
						10		100	
							IRIS		010905
	CHRONIC RfC COMMENT	THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (10/01/90) BY THE RfD/RfC WORK GROUP							
IRON		**007439-89-6**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005527
ISOBUTYL ALCOHOL		**000078-83-1**							
NOEL 316 MG/KG/DAY		RAT							
	ORAL GAVAGE	13 WEEKS	NERVOUS SYSTEM	HYPOACTIVITY		3E+0		IRIS	005977
			NERVOUS SYSTEM	ATAXIA		100			
ISOPHORONE		**000078-59-1**							
NOEL 150 MG/KG/DAY		DOG							
	ORAL CAPSULE	90 DAYS	KIDNEY	LESIONS		2E+0		IRIS	005910
						100			
	GENERAL COMMENT	ALSO SEE HEAST TABLE 3: CARCINOGENICITY							
							IRIS		010906
	CHRONIC RfC COMMENT	THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (11/15/90) BY THE RfD/RfC WORK GROUP							
ISOPROPALIN		**033820-53-0**							
NOEL 15 MG/KG/DAY		RAT							
	ORAL DIET	90 DAYS	BLOOD	HEMATOLIGICAL EFFECTS		1.5E-1		IRIS	005978
			ORGANS, UNSPECIFIED	ALTERED WEIGHTS		100			
LACTONITRILE		**000078-97-7**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005783

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
LEAD		**007439-92-1**							010447
CHRONIC [RfC] COMMENT REFER TO APPENDIX A TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS CHRONIC [RfD] COMMENT: REFER TO IRIS GENERAL COMMENT ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
LEAD ALKYLS									010448
CHRONIC [RfC] COMMENT. REFER TO APPENDIX A TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS CHRONIC [RfD] COMMENT: REFER TO IRIS GENERAL COMMENT: DIMETHYLETHYL LEAD; METHYLTRIETHYL LEAD, TETRABUTYL LEAD, TETRAETHYL LEAD; TETRAMETHYL LEAD, TETRAPROPYL LEAD, TRIETHYL LEAD, TRIMETHYL LEAD, TRIMETHYLETHYL LEAD; TRIPROPYL LEAD									
LINURON		**000330-55-2**							
LOAEL 0.625 MG/KG/DAY ORAL: DIET	DOG 2 YEARS		BLOOD	HEMATOLOGICAL EFFECTS		2E-3 300		IRIS	005990
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] GENERAL COMMENT. ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
MALATHION		**000121-75-5**							
NOEL 0 23 MG/KG/DAY ORAL CAPSULE	HUMAN 47 DAYS		BLOOD	HEMATOLOGICAL EFFECTS		2E-2 10		IRIS	005991
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] CHRONIC [RfC] COMMENT· UNDER REVIEW									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
MALEIC ANHYDRIDE		**000108-31-6**							
NOAEL 10 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	KIDNEY	LESIONS		1E-1 100		IRIS	005992
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
MALEIC HYDRAZIDE		**000123-33-1**							
LOAEL 500 MG/KG/DAY		RAT							
	ORAL DIET	28 MONTHS	KIDNEY	ALTERED FUNCTION		5E-1 1000		IRIS	005993
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
MALONONITRILE		**000109-77-3**							
LOAEL 0.21 MG/KG/DAY		RAT							
	ORAL: GAVAGE	120 DAYS	LIVER	EFFECTS		2E-4		2E-5	005994
			SPLEEN	EFFECTS		1000		10000	
MANCOZEB		**008018-01-7**							
NOEL 2 9 MG/KG/DAY		RAT							
	ORAL: DIET	90 WEEKS	THYROID	GOITROGENIC EFFECTS		3E-2 100		3E-2 100	005995
MANEB		**012427-38-2**							
NOEL 5 MG/KG/DAY		MONKEY							
	ORAL: DIET	6 MONTHS	THYROID	INCREASED WEIGHT		5E-2 100		IRIS	005996

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) / UF	Subchronic [RfD] (mg/kg/day) / UF	Chronic [RfC] (mg/cu m) / UF	Chronic [RfD] (mg/kg/day) / UF	REFERENCE
MANGANESE		**007439-96-5**							
NOAEL 0.14 MG/KG/DAY		HUMAN							
	ORAL: DIET	CHRONIC	CENTRAL NERVOUS SYSTEM	EFFECTS		1 4E-1 1		IRIS	010851
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL FOOD RfD WAS ADOPTED AS THE SUBCHRONIC ORAL FOOD [RfD]. SEE IRIS FOR SPECIFIC DIETARY INFORMATION.									
							IRIS		010959
SUBCHRONIC [RfC] COMMENT. A SUBCHRONIC [RfC] HAS NOT BEEN DERIVED FOR MANGANESE.									
MEPHOSFOLAN		**000950-10-7**							
NOEL 0.09 MG/KG/DAY		RAT							
	ORAL: DIET	17 WEEKS	LIVER	ALTERED WEIGHT		9E-4		9E-5	005997
			KIDNEY	ALTERED WEIGHT		100		1000	
			BLOOD	DECREASED CHOLINESTERASE ACTIVITY					
			ERYTHROCYTES	DECREASED CHOLINESTERASE ACTIVITY					
			BRAIN	DECREASED CHOLINESTERASE ACTIVITY					
MERCURIC CHLORIDE		**007487-94-7**							
		RAT							
	ORAL; SUBCUTANEOUS		IMMUNE SYSTEM	AUTOIMMUNE EFFECTS		3E-3 100		IRIS	005800
MERCURY, ELEMENTAL		**007439-97-6**							
NOAEL 0.009 MG/CU M		HUMAN							
	INHALATION.		NERVOUS SYSTEM	NEUROTOXICITY	3E-4 30		3E-4 30		010270
CHRONIC [RfC] COMMENT UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
MERPHOS		**000150-50-5**							
NOEL	0 1 MG/KG/DAY	HEN							
	ORAL CAPSULE	3 MONTHS	NERVOUS SYSTEM	ATAXIA		3E-4		IRIS	005998
			NERVOUS SYSTEM	DELAYED NEUROTOXICITY		300			
			WHOLE BODY	DECREASED WEIGHT					
									010907
CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (06/25/92) BY THE RfD/RfC WORK GROUP									
SUBCHRONIC [RfD] CPMMENT: THE CHRONIC ORAL RfD WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD]									
MERPHOS OXIDE		**000078-48-8**							
NOEL	0 1 MG/KG/DAY	HEN							
	ORAL. CAPSULE	3 MONTHS	NERVOUS SYSTEM	ATAXIA		3E-4		IRIS	005999
			NERVOUS SYSTEM	DELAYED NEUROTOXICITY		300			
			WHOLE BODY	DECREASED WEIGHT					
									010908
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (06/25/92) BY THE RfD/RfC WORK GROUP.									
SUBCHRONIC [RfD] CPMMENT THE CHRONIC ORAL RfD WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD].									
METHACRYLONITRILE		**000126-98-7**							
NOAEL	3 2 PPM	DOG							
	INHALATION	90 DAYS	LIVER	INCREASED SGOT		1E-3		IRIS	005812
	INTERMITTENT		LIVER	INCREASED SGPT		300			
			CENTRAL NERVOUS SYSTEM	LOSS OF HINDLIMB MOTOR CONTROL					
			BRAIN	LESIONS					
SUBCHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
SUBCHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION									
CHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHANOL		**000067-56-1**							
NOEL	500 MG/KG/DAY	RAT							
	ORAL: GAVAGE	90 DAYS	BLOOD	INCREASED ALKALINE PHOSPHATASE		5E+0		IRIS	010271
			BLOOD	INCREASED SGPT		100			
			BRAIN	DECREASED WEIGHT					
METHOMYL		**016752-77-5**							
NOEL	2.5 MG/KG/DAY	DOG							
	ORAL: DIET	24 MONTHS	KIDNEY	LESIONS		2.5E-2		IRIS	005802
						100			
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
METHOXYCHLOR		**000072-43-5**							
NOEL	5 01 MG/KG/DAY	RABBIT							
	ORAL: GAVAGE	13 DAYS	REPRODUCTION	LOSS OF LITTERS		5E-3		IRIS	010357
						1000			
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
							IRIS		010909
	CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (11/07/91) BY THE RfD/RfC WORK GROUP								
METHOXYETHANOL ACETATE, 2-		**000110-49-6**							
									010497
	CHRONIC [RfD] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								
	SUBCHRONIC [RfD] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHOXYETHANOL, 2-		**000109-86-4**							
NOAEL 93 MG/CU M		RABBIT							
	INHALATION:	13 WEEKS	TESTICLE	EFFECTS	2E-1		IRIS		010372
	INTERMITTENT				100				
SUBCHRONIC [RfD] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfD] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
METHYL ACETATE		**000079-20-9**							
NOEL 1156 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	LIVER	INCREASED ALKALINE PHOSPHATASE	1E+1		1E+0		010002
			LIVER	INCREASED SGPT	100		1000		
CHRONIC [RfD] COMMENT. CALCULATED FROM DATA OBTAINED WITH METHANOL BY MULTIPLYING BY THE MOLECULAR WEIGHT RATIO (74 08/32 04).									
METHYL ACRYLATE		**000096-33-3**							
									010498
CHRONIC [RfD] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
GENERAL COMMENT ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
METHYL CHLOROCARBONATE		**000079-22-1**							
CHRONIC [RfD] COMMENT. WITHDRAWN FROM IRIS (05/01/89).									
GENERAL COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300.									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL ETHYL KETONE		**000078-93-3**							
NOAEL 1711 MG/KG/DAY	RAT								
ORAL DRINKING WATER	MULTI-GENERATION	FETUS		DECREASED BIRTH WEIGHT		2E+0 1000		IRIS	010853
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS MODIFIED TO ESTIMATE THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT MULTI-GENERATION DEVELOPMENTAL STUDY PERFORMED WHT THE SURROGATE 2-BUTANOL, A METABOLITE OF METHYL ETHYL KETONE									
NOAEL 1010 PPM	MOUSE								
INHALATION: INTERMITTENT	10 DAYS	FETUS		DECREASED BIRTH WEIGHT	1E+0 3000		IRIS		010845
SUBCHRONIC [RfC] COMMENT THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]									
METHYL ETHYL KETONE PEROXIDE		**001338-23-4**							
CHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/22/93) BY THE RfD/RfC WORK GROUP									010948
METHYL ISOBUTYL KETONE		**000108-10-1**							
NOAEL 250 MG/(KG-DAY)	RAT								
ORAL: GAVAGE	13 WEEKS	WHOLE BODY		LETHARGY		8E-1		8E-2	010949
		LIVER		INCREASED RELATIVE WEIGHT IN FEMALES		300		3000	
		LIVER		INCREASED ABSOLUTE WEIGHT IN FEMALES					
		KIDNEY		INCREASED RELATIVE WEIGHT IN FEMALES					
		KIDNEY		INCREASED ABSOLUTE WEIGHT IN FEMALES					
		KIDNEY		INCREASED URINARY PROTEIN LEVELS IN FEMALES					
SUBCHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfD] COMMENT WITHDRAWN FROM IRIS (03/01/91). UNDER REVIEW. CURRENT NUMBER SUBJECT TO CHANGE.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL ISOCYANATE		**000624-83-9**					IRIS		010013
CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (12/18/90) BY THE RfD/RfC WORK GROUP.									
METHYLMERCURY		**022967-92-6**							
CRITICAL ORAL DOSE 0.001 MG/KG/DAY	HUMAN		DEVELOPMENTAL NEUROLOGICAL ABNORMALITIES IN HUMAN INFANTS		1E-4 10	IRIS			010970
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] CHRONIC [RfD] COMMENT. A BENCHMARK DOSE APPROACH WAS USED RATHER THAN A NOAEL/LOAEL TO DERIVE THE RfD.									
METHYL METHACRYLATE		**000080-62-6**							
NOEL 7 5 MG/KG/DAY ORAL: WATER	RAT 24 MONTHS		KIDNEY	INCREASED RELATIVE WEIGHT	8E-2 100		8E-2 100		010014
METHYL PARATHION		**000298-00-0**						IRIS	010015
NOAEL 2.5 PPM ORAL: DIET	RAT 90 DAYS		ERYTHROCYTES	CHOLINESTERASE INHIBITION	2E-3 100				010846
METHYL STYRENE (MIXED ISOMERS)		**025013-15-4**							010500
CHRONIC [RfD] COMMENT. UNDER REVIEW ALSO SEE HEAST TABLE 2. ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY) GENERAL COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
METHYL STYRENE, ALPHA		**000098-83-9**							010499
GENERAL COMMENT: ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL-4-CHLOROPHENOXY) BUTYRIC ACID, 4-(2- 000094-81-5									
NOEL	12 MG/KG/DAY	RAT							
	ORAL: DIET	13 WEEKS	LIVER	EFFECTS		1E-1		IRIS	010008
			KIDNEY	EFFECTS		100			
		DOG							
	ORAL. DIET	13 WEEKS	LIVER	EFFECTS					
			KIDNEY	EFFECTS					
METHYL-4-CHLOROPHENOXY) PROPIONIC ACID, 2-(2- 000093-65-2									
NOEL	3 MG/KG/DAY	RAT							
	ORAL: DIET	90 DAYS	KIDNEY	ALTERED WEIGHT		1E-2		IRIS	010009
						300			
METHYL-4-CHLOROPHENOXYACETIC ACID, 2- 000094-74-6									
NOEL	0.15 MG/KG/DAY	DOG							
	ORAL: DIET	52 WEEKS	KIDNEY	EFFECTS		5E-4		IRIS	010007
			LIVER	EFFECTS		300			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
METHYLCYCLOHEXANE 000108-87-2									
NOAEL	287 MG/CU M	RAT							
	INHALATION	1 YEAR	KIDNEY	MINERALIZATION	3E+0		3E+0		010431
	INTERMITTENT		KIDNEY	PAPILLARY HYPERPLASIA	100		100		
METHYLENE BROMIDE 000074-95-3									010501
GENERAL COMMENT: ALSO SEE HEAST TABLE 2 ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYLENE CHLORIDE (DICHLOROMETHANE) 000075-09-2									
NOAEL 5 85 MG/KG/DAY	RAT								
ORAL. DRINKING WATER	24 MONTHS	LIVER	TOXICITY			6E-2 100		IRIS	005553
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
NOAEL 694 8 MG/CU M	RAT								
INHALATION: INTERMITTENT	2 YEARS	LIVER	TOXICITY		3E+0 100		3E+0 100		005552
GENERAL COMMENT ALSO SEE HEAST TABLE 3· CARCINOGENICITY.									
METHYLENE-BIS(2-CHLOROANILINE), 4,4'- 000101-14-4									
LOAEL 7.3 MG/KG/DAY	DOG								
ORAL	9 YEARS	LIVER	EFFECTS			7E-4		7E-4	010413
		BLADDER	EFFECTS			10000		10000	
									010933
CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE 02/10/93) BY THE RfD/RfC WORK GROUP.									
METHYLENEDIPHENYL ISOCYANATE, 4,4- (DIPHENYLMETHANE DIISOCYANATE) 000101-68-8									
NOAEL 0.2 MG/CU M	RAT								
INHALATION· INTERMITTENT	24 MONTHS	NASAL CAVITY	LESIONS		2E-5 300		IRIS		010449
SUBCHRONIC [RfC] COMMENT THE CHRONIC INHALATION RfC ON IRIS WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC].									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METOLACHLOR		**051218-45-2**							
NOAEL 300 PPM		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		1 5E-1 100		1.5E-1 100	010950
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUCHRONIC ORAL [RfD]									
METRIBUZIN		**021087-64-9**							
NOAEL 100 PPM		DOG							
	ORAL: DIET	2 YEARS	LIVER	EFFECTS				IRIS	010928
			KIDNEY	EFFECTS					
			WHOLE BODY	MORTALITY					
			WHOLE BODY	DECREASED WEIGHT					
SUBCHRONIC [RfD] COMMENT: THE SUBCHRONIC ORAL [RfD] WAS REMOVED BECAUSE THE CHRONIC ORAL RfD UPON WHICH IT WAS BASED IS UNDER REVIEW BY THE RfD/RfC WORK GROUP. CHRONIC RfD COMMENT. THE CHRONIC ORAL RfD, WHILE STILL ON IRIS, IS BEING RECONSIDERED BY THE RfD/RfC WORK GROUP									
MIREX		**002385-85-5**							
NOAEL 0.07 MG/KG/DAY		RAT							
	ORAL DIET	2 YEARS	LIVER	CYTOMEGALY		2E-4		IRIS	010841
			LIVER	FATTY METAMORPHOSIS		300			
			LIVER	ANGIECTASIS					
			THYROID	CYSTIC FOLLICLES					
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT	LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
MOLINATE			**002212-67-1**							
NOEL	0.2 MG/KG/DAY	RAT								
	ORAL, GAVAGE			REPRODUCTIVE SYSTEM	TOXICITY		2E-3 100		IRIS	010017
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
	CHRONIC [RfD] COMMENT BASED ON A REPRODUCTION STUDY.									
MOLYBDENUM			**007439-98-7**							
LOAEL	0.14 MG/KG/DAY	HUMAN								
	ORAL: WATER, DIET			URINE JOINTS BLOOD	INCREASED URIC ACID PAIN, SWELLING DECREASED COPPER LEVELS		5E-3 30		IRIS	010489
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RFD].									
MONOCHLORAMINE			**010599-90-3**							
NOAEL	9.5 MG/KG/DAY	RAT								
	ORAL: DRINKING WATER	2 YEARS		WHOLE BODY LIVER KIDNEY	WEIGHT CHANGES WEIGHT CHANGES WEIGHT CHANGES		1E-1 100		IRIS	010517
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
NAPHTHALENE			**000091-20-3**							
	CHRONIC [RfD] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER, (513) 569-7300.									
NAPHTHOQUINONE, 1,4-			**000130-15-4**							
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010020
NICKEL CYANIDE			**000557-19-7**							
	CHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/20/93) BY THE RfD/RfC WORK GROUP									010953

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
NICKEL, SOLUBLE SALTS		**VARIOUS**							
NOAEL 100 PPM		RAT							
	ORAL, DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		2E-2		IRIS	005579
			ORGANS, MAJOR	DECREASED WEIGHT		300			
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] WAS DERIVED FROM NICKEL MOIETY OF ADMINISTERED NICKEL CHLORIDE.									
NICOTINONITRILE		**000100-54-9**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005584
NITRIC OXIDE		**010102-43-9**							
CHRONIC [RfC] COMMENT. REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS.									010451
CHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD HAS BEEN PERMANENTLY WITHDRAWN (09/01/94) FROM IRIS.									
NITRITE		**014797-65-0**							
NOEL 10 PPM		HUMAN							
	ORAL: WATER		BLOOD	METHEMOGLOBINEMIA		1E-1		IRIS	010021
						10			
SUBCHRONIC [RfD] COMMENT: THIS VALUE IS BASED ON NITRATE (NITROGEN) DATA FROM THE MOST SENSITIVE HUMAN POPULATION (INFANTS) THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT: THIS VALUE IS BASED ON NITRATE (NITROGEN) DATA FROM THE MOST SENSITIVE HUMAN POPULATION (INFANTS).									
NITROANILINE, 2-		**000088-74-4**							
									010936
CHRONIC [RfD] COMMENT THE CHRONIC ORAL [RFD] IS CONSIDERED NOT VERIFIABLE (06/23/92) BY THE RFD/RFC WORK GROUP									
LOAEL 9.8 MG/CU M		RAT							
	INHALATION: INTERMITTENT	4 WEEKS	BLOOD	HEMATOLOGICAL EFFECTS	2E-3 1000		2E-4 10000		010935

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
NITROANILINE, M-		**000099-09-2**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							010400
NITROANILINE, P-		**000100-01-6**							
	GENERAL COMMENT.	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							010024
NITROBENZENE		**000098-95-3**							
LOAEL 25 MG/CU M		MOUSE							
	INHALATION·	90 DAYS	BLOOD	HEMATOLOGICAL EFFECTS		5E-3		IRIS	005589
	INTERMITTENT		ADRENAL	LESIONS		1000			
			KIDNEY	LESIONS					
			LIVER	LESIONS					
		RAT							
	INHALATION:	90 DAYS	BLOOD	HEMATOLOGICAL EFFECTS					
	INTERMITTENT		ADRENAL	LESIONS					
			KIDNEY	LESIONS					
			LIVER	LESIONS					
	SUBCHRONIC [RfC] COMMENT·	ALSO SEE HEAST TABLE 2. ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)							
	SUBCHRONIC [RfD] COMMENT	BASED ON ROUTE TO ROUTE EXTRAPOLATION							
	CHRONIC [RfC] COMMENT:	ALSO SEE HEAST TABLE 2· ALTERNATE METHODS SUBCHRONIC AND CHRONICTOXICITY (OTHER THAN CARCINOGENICITY)							
	CHRONIC [RfD] COMMENT	THE ORAL RFD, WHILE STILL AVAILABLE ON IRIS, IS BEING RECONSIDERED BY THE RFD WORKGROUP. BASED ON ROUTE TO ROUTE EXTRAPOLATION							
	GENERAL COMMENT:	ALSO SEE HEAST TABLE 3: CARCINOGENICITY							
NITROFURANTOIN		**000067-20-9**							
NOAEL 300 PPM		MOUSE							
	ORAL· DIET	13 WEEKS	TESTIS	DAMAGE		7E-1		7E-2	005593
						100		1000	

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
NITROGEN DIOXIDE		**010102-44-0**							
CHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD HAS BEEN PERMANENTLY WITHDRAWN (09/01/94) FROM IRIS									010402
CHRONIC [RfC] COMMENT REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS									010912
NITROGEN OXIDES									
CHRONIC [RfC] COMMENT· REFER TO APPENDIX A TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS									010170
NITROMETHANE		**000075-52-5**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010026
NITROPHENOLS									
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005594
NITROPROPANE, 2-		**000079-46-9**							
LOAEL 78 MG/CU M		RAT							
	INHALATION. INTERMITTENT	22 MONTHS	LIVER	LESIONS	2E-2 1000		IRIS		010374
SUBCHRONIC [RfC] COMMENT THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC].									
NITROSODIPHENYLAMINE, P-		**000156-10-5**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010027
NITROTOLUENE, M-		**000099-08-1**							
LOAEL 200 MG/KG/DAY		RAT							
	ORAL GAVAGE	6 MONTHS	SPLEEN	LESIONS		1E-1 1000		1E-2 10000	010029
SUBCHRONIC [RfD] COMMENT BASED ON DATA OBTAINED WITH O-NITROTOLUENE									
CHRONIC [RfD] COMMENT BASED ON DATA OBTAINED WITH O-NITROTOLUENE.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
NITROTOLUENE, O-		**000088-72-2**							
LOAEL 200 MG/KG/DAY		RAT				1E-1		1E-2	010028
	ORAL. GAVAGE	6 MONTHS	SPLEEN	LESIONS		1000		10000	
NITROTOLUENE, P-		**000099-99-0**							
LOAEL 200 MG/KG/DAY		RAT				1E-1		1E-2	010030
	ORAL: GAVAGE	6 MONTHS	SPLEEN	LESIONS		1000		10000	
SUBCHRONIC [RfD] COMMENT: BASED ON DATA OBTAINED WITH O-NITROTOLUENE									
CHRONIC [RfD] COMMENT: BASED ON DATA OBTAINED WITH O-NITROTOLUENE									
OCTABROMODIPHENYL ETHER		**032536-52-0**							
NOAEL 2 5 MG/KG/DAY		RAT				3E-2		IRIS	010032
	ORAL GAVAGE	90 DAYS	LIVER	HISTOLOGICAL CHANGES		100			
OCTAMETHYLPYROPHOSPHORAMIDE		**000152-16-9**							
NOAEL 0.02 MG/KG/DAY		HUMAN				2E-3		2E-3	010031
	ORAL	AT LEAST 30 DAYS	BLOOD	DECREASED CHOLINESTERASE ACTIVITY		10		10	
OSMIUM TETROXIDE		**020816-12-0**							
CHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/22/93) BY THE RfD/RfC WORK GROUP.									010954
OZONE		**010028-15-6**							
CHRONIC [RfC] COMMENT REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS									010171
PARALDEHYDE		**000123-63-7**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010033

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PARATHION		**000056-38-2**							
NOAEL 0 064 MG/KG/DAY		HUMAN							
	ORAL		CHOLINESTERASE	DECREASED CHOLINESTERASE ACTIVITY		6E-3 10		6E-3 10	005598
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY.									
PARTICULATE MATTER									
CHRONIC [RfC] COMMENT REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS.									010034
PEBULATE		**001114-71-2**							
NOEL 5 MG/KG/DAY		RAT							
	ORAL: DIET	SUBCHRONIC	BLOOD	INCREASED CLOTTING TIME		5E-2 100		5E-2 100	010036
PENDIMETHALIN		**040487-42-1**							
NOEL 12.5 MG/KG/DAY		DOG							
	ORAL: CAPSULE	2 YEARS	LIVER	EFFECTS		4E-2 300		IRIS	010037
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
PENTABROMODIPHENYL ETHER		**032534-81-9**							
NOAEL 1 8 MG/KG/DAY		RAT							
	ORAL GAVAGE	90 DAYS	LIVER	ALTERED ENZYME ACTIVITIES		2E-2 100		IRIS	010038

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PENTACHLOROBENZENE		**000608-93-5**							
LOAEL 8.3 MG/KG/DAY		RAT							
	ORAL: DIET	100 DAYS	LIVER	TOXICITY		8E-3		IRIS	010039
			KIDNEY	TOXICITY		1000			
PENTACHLOROCYCLOPENTADIENE		**025329-35-5**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005302
PENTACHLORONITROBENZENE		**000082-68-8**							
NOEL 0 75 MG/KG/DAY		DOG							
	ORAL: DIET	2 YEARS	LIVER	TOXICITY		3E-3		IRIS	010040
						300			
	SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
	GENERAL COMMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY								
PENTACHLOROPHENOL		**000087-86-5**							
NOEL 3 MG/KG/DAY		RAT							
	ORAL GAVAGE	62 DAYS	FETUS	FETOTOXICITY		3E-2		IRIS	005600
						100			
	SUBCHRONIC [RfD] COMMENT BASED ON A TERATOLOGY STUDY WITH EXPOSURE 62 DAYS PRIOR TO MATING AND THROUGHOUT GESTATION AND LACTATION.								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY								
PENTACHLOROPROPENE, 1,1,2,3,3,-		**001600-37-9**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							010041
PENTANE, N-		**000109-66-0**							
	GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005603

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PHENANTHRENE		**000085-01-8**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005604
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/04/94) BY THE RfD/RfC WORK GROUP.									
PHENOL		**000108-95-2**							
NOAEL 60 MG/KG/DAY		RAT							
	ORAL. GAVAGE		FETUS	DECREASED WEIGHT		6E-1 100		IRIS	005824
SUBCHRONIC [RfD] COMMENT: BASED ON A DEVELOPMENTAL STUDY WITH EXPOSURES DURING DAYS 6-15 OF GESTATION. THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT BASED ON A DEVELOPMENTAL STUDY WITH EXPOSURES DURING DAYS 6-15 OF GESTATION.									
							IRIS		010913
CHRONIC RfC COMMENT. THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (02/22/90) BY THE RfD/RfC WORK GROUP									
PHENYLENEDIAMINE, M-		**000108-45-2**							
NOEL 6 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	LESIONS		6E-2 100		IRIS	010044
PHENYLENEDIAMINE, O-		**000095-54-5**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									010042
PHENYLENEDIAMINE, P-		**000106-50-3**							
NOAEL 18.7 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	EFFECTS				1 9E-1 100	010043

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PHENYLMERCURIC ACETATE		**000062-38-4**							
NOAEL	0 0084 MG/KG/DAY	RAT							
	ORAL DIET	2 YEARS	KIDNEY	DAMAGE		8E-5		IRIS	010277
						100			
SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] CALCULATED BY ANALOGY TO MERCURY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
CHRONIC [RfD] COMMENT	CALCULATED BY ANALOGY TO MERCURY BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT								
PHORATE		**000298-02-2**							
NOAEL	0.033 MG/KG/DAY	RAT							
	ORAL: DIET	13 WEEKS	CHOLINESTERASE	INHIBITION		2E-4		2E-4	010403
						200		200	
SUBCHRONIC [RfD] COMMENT.	THE CHRONIC ORAL [RfD] WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
PHOSGENE		**000075-44-5**							
							IRIS		010045
CHRONIC RfC COMMENT	THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (10/01/90) BY THE RfD/RfC WORK GROUP								
PHOSPHINE		**007803-51-2**							
NOEL	0 026 MG/KG/DAY	RAT							
	ORAL DIET	2 YEARS				3E-4		IRIS	010174
						100			
SUBCHRONIC [RfD] COMMENT	THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
NOAEL	1 4 MG/CU M	MOUSE							
	INHALATION: INTERMITTENT	13 WEEKS	WHOLE BODY	DECREASED WEIGHT	3E-3		IRIS		010976
					100				

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PHOSPHORUS, WHITE		**007723-14-0**							
								IRIS	010452
	GENERAL COMMENT: FORMERLY LISTED AS PHOSPHORUS (INORGANIC COMPOUNDS).								
PHOTOCHEMICAL OXIDANTS									
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT.								010172
PHTHALIC ACID, M-		**000121-91-5**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010047
PHTHALIC ACID, O-		**000088-99-3**							
	GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010046
PHTHALIC ACID, P-		**000100-21-0**							
NOEL	142 MG/KG/DAY	RAT							
	ORAL, DIET	2 YEARS	BLADDER	HYPERPLASIA		1E+0		1E+0	010048
						100		100	
PHTHALIC ANHYDRIDE		**000085-44-9**							
LOAEL	1562 MG/KG/DAY	MOUSE							
	ORAL, DIET	104 WEEKS	LUNG	HISTOPATHOLOGY		2E+0		IRIS	010049
			KIDNEY	HISTOPATHOLOGY		1000			
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
LOAEL	0 1 MG/CU M	HUMAN							
	INHALATION	12 YEARS	NOSE	RHINITIS	1.2E-1		1 2E-1		010847
	INTERMITTENT		LUNGS	BRONCHITIS	300		300		
	SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
POLYBROMINATED BIPHENYLS									
LOAEL 0.07 MG/KG/DAY		RAT							
	ORAL. GAVAGE	25 WEEKS	LIVER	INCREASED WEIGHT		7E-5		7E-6	010050
			LIVER	LESIONS		1000		10000	
GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY.									
POTASSIUM CYANIDE		**000151-50-8**							
NOAEL 27 MG/KG/DAY		RAT							
	ORAL. DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		5E-2		IRIS	010278
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
POTASSIUM SILVER CYANIDE		**000506-61-6**							
NOAEL 82 7 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		2E-1		IRIS	010279
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
PROFLURALIN		**026399-36-0**							
NOEL 3 MG/KG/DAY		RAT							
	ORAL. DIET	SUBCHRONIC		NONE OBSERVED		6E-3		6E-3	010051
						500		500	

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PRONAMIDE		**023950-58-5**							
NOEL	7.5 MG/KG/DAY	DOG							
	ORAL: DIET	2 YEARS		NONE OBSERVED		7 5E-2 100		IRIS	010280
	SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]								
PROPACHLOR		**001918-16-7**							
NOEL	13.3 MG/KG/DAY	RAT							
	ORAL: DIET	90 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		1.3E-1 100		IRIS	010175
PROPAZINE		**000139-40-2**							
NOEL	5 MG/KG/DAY	RAT							
	ORAL DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		2E-2 300		IRIS	010052
	SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].								
PROPIONITRILE		**000107-12-0**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010053
PROPYL ALCOHOL, N-		**000071-23-8**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005627

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PROPYLENE GLYCOL		**000057-55-6**							
NOEL	50000 PPM	DOG							
	ORAL. DIET	2 YEARS	ERYTHROCYTES	DECREASED COUNT				2E+1	005631
			BLOOD	DECREASED HEMATOCRIT				100	
			BLOOD	DECREASED HEMOGLOBIN					
NOEL	6 %	RAT							
	ORAL: DIET	20 WEEKS	KIDNEY	LESIONS		3E+1			005629
						100			
							IRIS		010914
	CHRONIC RfC COMMENT. THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (04/25/91) BY THE RfD/RfC WORK GROUP								
PROPYLENE GLYCOL MONOETHYL ETHER		**001569-02-4**							
NOEL	680 MG/KG/DAY	RAT							
	ORAL DRINKING WATER	30 DAYS	WHOLE BODY	DECREASED WEIGHT GAIN		7E+0		7E-1	005488
						100		1000	
							IRIS		010915
	CHRONIC RfC COMMENT. THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (04/25/91) BY THE RfD/RfC WORK GROUP.								
PROPYLENE GLYCOL MONOMETHYL ETHER		**000107-98-2**							
NOEL	947 MG/KG/DAY	RAT							
	ORAL GAVAGE	35 DAYS	LIVER	HISTOPATHOLOGY		7E+0		7E-1	005486
			KIDNEY	HISTOPATHOLOGY		100		1000	
NOAEL	1000 PPM	RAT, RABBIT							
	INHALATION. INTERMITTENT	13 WEEKS	CENTRAL NERVOUS SYSTEM	EFFECTS	2E+1		IRIS		010276
					30				

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
PROPYLENE OXIDE		**000075-56-9**							
LOAEL 71 MG/CU M		RAT							
	INHALATION: INTERMITTENT	2 YEARS	EPITHELIUM	UNSPECIFIED	3E-2 100		IRIS		010375
SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RFC]									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY									
PYRENE		**000129-00-0**							
NOAEL 75 MG/KG/DAY		MOUSE							
	ORAL: GAVAGE	13 WKS	KIDNEY	EFFECTS		3E-1 300		IRIS	010176
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (08/04/94) BY THE RfD/RfC WORK GROUP									010968
PYRIDINE		**000110-86-1**							
NOAEL 1 MG/KG/DAY		RAT							
	ORAL. GAVAGE	90 DAYS	LIVER	INCREASED WEIGHT		1E-2		IRIS	010055
			LIVER	INCREASED RELATIVE WEIGHT		100			
RDX / (CYCLONITE)		**000121-82-4**							
NOEL 0 3 MG/KG/DAY		RAT							
	ORAL	105 WEEKS	PROSTATE	INFLAMMATION		3E-3		IRIS	010056
			PROSTATE	HEMOSIDEROSIS		100			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY.									
RONNEL		**000299-84-3**							
NOAEL 5 MG/KG/DAY		RAT							
	ORAL DIET	2 YEARS	LIVER	EFFECTS		5E-2 100		5E-2 100	010057

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
SELENIOUS ACID		**007783-00-8**							
NOAEL 0.046 MG/KG/DAY		HUMAN							
	ORAL: DIET		WHOLE BODY	SELENOSIS, CLINICAL		5E-3 3		IRIS	010504
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
SELENIUM		**007782-49-2**							
NOAEL 0.853 MG/DAY		HUMAN							
	ORAL: DIET		WHOLE BODY	SELENOSIS, CLINICAL		5E-3 3		IRIS	010404
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
SELENOUREA		**000630-10-4**							
NOAEL 0 072 MG/KG/DAY		HUMAN							
	ORAL: DIET		WHOLE BODY	SELENOSIS		5E-3 15		5E-3 15	010473
CHRONIC [RfD] COMMENT WITHDRAWN FROM IRIS (05/01/91) UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE.									
SILVER		**007440-22-4**							
LOAEL 0.014 MG/KG/DAY		HUMAN							
	IV	2-9 YEARS	SKIN	ARGYRIA		5E-3 3		IRIS	010453
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD] CHRONIC [RfD] COMMENT: BASED ON A TOTAL IV DOSE OF 1 GRAM									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
SILVER CYANIDE		**000506-64-9**							
NOAEL 55.7 MG/KG/DAY		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT		1E-1		IRIS	010283
			THYROID	EFFECTS		500			
			NERVE	MYELIN DEGENERATION					
SUBCHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
SIMAZINE		**000122-34-9**							
NOAEL 0.52 MG/(KG-DAY)		RAT							
	ORAL: DIET	2 YEARS	WHOLE BODY	DECREASED WEIGHT GAIN		5E-3		IRIS	010955
			BLOOD	HEMATOLOGICAL EFFECTS		100			
SUBCHRONIC [RfD] COMMENT. THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT· ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
SODIUM CYANIDE		**000143-33-9**							
NOAEL 20 4 MG/KG/DAY		RAT							
	ORAL DIET		CENTRAL NERVOUS SYSTEM	EFFECTS		4E-2		IRIS	005640
						500			
SUBCHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT THE ORAL CHRONIC RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
CHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT.									
SODIUM DIETHYLDITHIOCARBAMATE		**000148-18-5**							
NOEL 30 MG/KG/DAY		RAT							
	ORAL	90 DAYS	EYE	CATARACTS		3E-1		IRIS	005644
			WHOLE BODY	DECREASED WEIGHT		100			
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY									

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
SODIUM METAVANADATE **013718-26-8**							
NOAEL 10 PPM RAT							
ORAL: DRINKING WATER 3 MONTHS	KIDNEY	IMPAIRED FUNCTION		1E-2 100		1E-3 1000	005735
STRONTIUM, STABLE **007440-24-6**							
NOAEL 190 MG/KG/DAY RAT, YOUNG							
ORAL: DRINKING WATER 20 DAYS	BONE	RACHITIC CHANGES		6E-1 300		IRIS	010842
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]							
STRYCHNINE **000057-24-9**							
LOAEL 2 5 MG/KG/DAY RAT							
ORAL GAVAGE 28 DAYS	UNSPECIFIED UNSPECIFIED	TOXICITY HISTOPATHOLOGY		3E-3 1000		IRIS	010285
GENERAL COMMENT THE LOAEL IS ALSO THE FEL.							
STYRENE **000100-42-5**						IRIS	010059
NOAEL 22 PPM HUMAN							
INHALATION OCCUPATIONAL	CENTRAL NERVOUS SYSTEM	EFFECTS	3E+0 10		IRIS		010511
CHRONIC [RfC] COMMENT THE MEAN DURATION OF EXPOSURE FOR 50 WORKERS WAS 8.6 YEARS AIR EXPOSURE CONCENTRATIONS WERE ESTIMATED FROM THE SUMMATION OF THE PRINCIPLE URINARY METABOLITES OF STYRENE, MANDELIC ACID AND PHENYLGLYOXYLIC ACID SEE IRIS FOR MORE INFORMATION.							
GENERAL COMMENT ALSO SEE HEAST TABLE 3 CARCINOGENICITY							
SUCCINONITRILE **000110-61-2**							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005585

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
SULFUR DIOXIDE		**007446-09-5**							
CHRONIC [RfC] COMMENT	REFER TO APPENDIX A· TECHNICAL INFORMATION. SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS								010505
SULFUR OXIDES									
CHRONIC [RfC] COMMENT·	REFER TO APPENDIX A TECHNICAL INFORMATION. SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS.								010035
SULFURIC ACID		**007664-93-9**							
NOAEL 0 066-0.098 MG/CU M	HUMAN								
INHALATION			RESPIRATORY SYSTEM	RESPIRATORY EFFECTS					005647
CHRONIC [RfC] COMMENT	REPORTED EFFECTS OCCURRED AT PORTAL OF ENTRY. ESTIMATES OF MG/DAY REFERENCE DOSES ARE INAPPROPRIATE BECAUSE EFFECTS AT PORTAL OF ENTRY DEPEND ON CONCENTRATION IN AIR AN ACCEPTABLE AIR CONCENTRATION OF 0 07 MG/CU M WAS ESTIMATED BY CARSON ET AL (1981) FROM AVAILABLE DATA								
TEMEPHOS		**003383-96-8**							
NOAEL 200 PPM	RAT								
ORAL· DIET	99 DAYS					2E-1 100		2E-2 1000	010060
TERBUFOS		**013071-79-9**							
NOAEL 0 0025 MG/KG/DAY	DOG								
ORAL DIET	6 MONTHS		CHOL1NESTERASE	INHIBITION		2 5E-5 100		2 5E-5 100	010408
TEREPHTHALIC ACID		**000100-21-0**							
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010474
TETRACHLOROAZOXYBENZENE		**021232-47-3**							
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010064

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TETRACHLOROBENZENE, 1,2,4,5- 000095-94-3							
NOAEL 0.34 MG/KG/DAY RAT							
ORAL DIET 13 WEEKS	KIDNEY	LESIONS		3E-3		IRIS	010286
				100			
TETRACHLOROCYCLOPENTADIENE 000695-77-2							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005303
TETRACHLOROETHANE, 1,1,1,2- 000630-20-6							
LOAEL 89 3 MG/KG/DAY RAT							
ORAL GAVAGE 103 WEEKS	LIVER	LESIONS		3E-2		IRIS	010407
	KIDNEY	LESIONS		3000			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]							
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.							
TETRACHLOROETHYLENE 000127-18-4							
NOAEL 14 MG/KG/DAY MOUSE							
ORAL 6 WEEKS	LIVER	HEPATOTOXICITY		1E-1		IRIS	005650
				100			
GENERAL COMMENT· ALSO SEE HEAST TABLE 3· CARCINOGENICITY.							
TETRACHLOROHYDRAZOBENZENE 071753-42-9							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							010065
TETRACHLOROPHENOL, 2,3,4,5- 004901-51-3							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005324

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TETRACHLOROPHENOL, 2,3,4,6- 000058-90-2									
NOAEL 25 MG/KG/DAY		RAT							
	ORAL: GAVAGE	90 DAYS	LIVER	INCREASED WEIGHT		3E-1		IRIS	005323
			LIVER	CENTRILOBULAR HYPERTROPHY		100			
TETRACHLOROPHENOL, 2,3,5,6- 000935-95-5									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005325
TETRACHLOROPROPENE, 1,1,2,3- 010436-39-2									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010066
TETRACHLOROVINPHOS / (STIROPHOS) 000961-11-5									
NOEL 3.1 MG/KG/DAY		DOG							
	ORAL: DIET	2 YEARS	LIVER	INCREASED WEIGHT		3E-2		IRIS	010067
			KIDNEY	INCREASED WEIGHT		100			
			WHOLE BODY						
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3: CARCINOGENICITY.									
TETRAETHYL DITHIOPYROPHOSPHATE 003689-24-5									
NOEL 0.5 MG/KG/DAY		RAT							
	ORAL: DIET	3 MONTHS	ERYTHROCYTES	DECREASED CHOLINESTERASE ACTIVITY		5E-3		IRIS	010287
						100			
			BLOOD	DECREASED CHOLINESTERASE ACTIVITY					
THALLIC OXIDE 001314-32-5									
CHRONIC [RfD] COMMENT: THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/22/93) BY THE RfD/RfC WORK GROUP									010956

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
THALLIUM (I) ACETATE		**000563-68-8**							
NOAEL 0 26 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	INCREASED SGOT		9E-4		IRIS	005664
			BLOOD	INCREASED SERUM LDH		300			
			HAIR	ALOPECIA					
SUBCHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES.									
CHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES.									
THALLIUM (I) CARBONATE		**006533-73-9**							
NOAEL 0 23 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	INCREASED SGOT		8E-4		IRIS	005668
			BLOOD	INCREASED SERUM LDH		300			
			HAIR	ALOPECIA					
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES									
CHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES.									
THALLIUM (I) CHLORIDE		**007791-12-0**							
NOAEL 0.23 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	INCREASED SGOT		8E-4		IRIS	005672
			BLOOD	INCREASED SERUM LDH		300			
			HAIR	ALOPECIA					
SUBCHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES.									
CHRONIC [RfD] COMMENT. CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES									
THALLIUM, INSOLUBLE SALTS									
CHRONIC [RfD] COMMENT. REFER TO IRIS FOR OTHER THALLIUM SALTS.									010458

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
THALLIUM (I) NITRATE		**010102-45-1**							
NOAEL 0.26 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	INCREASED SGOT		9E-4		IRIS	005676
			BLOOD	INCREASED SERUM LDH		300			
			HAIR	ALOPECIA					
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES									
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO THALLIUM (I) SULFATE BY CORRECTING FOR MOLECULAR WEIGHT DIFFERENCES									
THALLIUM SELENITE		**012039-52-0**							010957
CHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS WITHDRAWN FROM IRIS (08/01/93). THE CHRONIC ORAL [RfD] IS CONSIDERED NOT VERIFIABLE (07/22/93) BY THE RfD/RfC WORK GROUP									
THALLIUM (I) SULFATE		**007446-18-6**							
NOAEL 0 25 MG/KG/DAY		RAT							
	ORAL	90 DAYS	LIVER	INCREASED SGOT		8E-4		IRIS	005682
			BLOOD	INCREASED SERUM LDH		300			
			HAIR	ALOPECIA					
THIOCYANOMETHYLTHIO)BENZOTHIAZOLE, 2-(		**021564-17-0**							
NOEL 25 MG/KG/DAY		RAT							
	ORAL DIET	SUBCHRONIC	STOMACH	LESIONS		3E-1		3E-2	010068
						100		1000	
SUBCHRONIC [RfD] COMMENT BASED ON CONFIDENTIAL BUSINESS INFORMATION DATA									
CHRONIC [RfD] COMMENT· BASED ON CONFIDENTIAL BUSINESS INFORMATION DATA									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
THIOFANOX		**013196-18-4**							
NOAEL 0 025 MG/KG/DAY		DOG							
	ORAL	8 DAYS	CHOLINESTERASE	DECREASED CHOLINESTERASE ACTIVITY		3E-4 100		3E-4 100	010069
SUBCHRONIC [RfD] COMMENT. BASED ON CONFIDENTIAL BUSINESS INFORMATION DATA.									
CHRONIC [RfD] COMMENT. BASED ON CONFIDENTIAL BUSINESS INFORMATION DATA									
THIRAM		**000137-26-8**							
								IRIS	010459
NOAEL 0.61 MG/KG/DAY		FERRET							
	ORAL	24 WEEKS	REPRODUCTION	IMPAIRED		6E-3 100			010070
TIN AND COMPOUNDS									
NOAEL 2000 PPM		RAT							
	ORAL: DIET	2 YEARS	LIVER KIDNEY	LESIONS LESIONS		6E-1 100		6E-1 100	005688
SUBCHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO STANNOUS CHLORIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
CHRONIC [RfD] COMMENT: CALCULATED BY ANALOGY TO STANNOUS CHLORIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
TOLUENE		**000108-88-3**							
NOAEL 223 MG/KG/DAY		RAT							
	ORAL. GAVAGE	13 WEEKS	LIVER KIDNEY	ALTERED WEIGHT ALTERED WEIGHT		2E+0 100		IRIS	010469
							IRIS		010844
SUBCHRONIC [RfC] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TOLUENE-2,5-DIAMINE		**000095-70-5**							
NOAEL 56 MG/KG/DAY		RAT							
	ORAL: DIET	78 WEEKS				6E-1		6E-1	010073
						100		100	
SUBCHRONIC [RfD] COMMENT: DETERMINED FROM DATA OBTAINED WITH THE SULFATE SALT.									
CHRONIC [RfD] COMMENT: DETERMINED FROM DATA OBTAINED WITH THE SULFATE SALT.									
TOLUENE-2,6-DIAMINE		**000823-40-5**							
NOAEL 16 MG/KG/DAY		RAT							
	ORAL DIET	2 YEARS				2E-1		2E-1	010074
						100		100	
SUBCHRONIC [RfD] COMMENT DETERMINED FROM DATA OBTAINED WITH THE DIHYDROCHLORIDE									
CHRONIC [RfD] COMMENT: DETERMINED FROM DATA OBTAINED WITH THE DIHYDROCHLORIDE									
TOLUENEDIAMINE, 2,3-		**002687-25-4**							
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010071
TOLUENEDIAMINE, 3,4-		**000496-72-0**							
GENERAL COMMENT:	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010072
TOLUIDINE, M-		**000108-44-1**							
GENERAL COMMENT	DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010075
TRIALLATE		**002303-17-5**							
NOAEL 1 275 MG/KG/DAY		DOG							
	ORAL. DIET	24 MONTHS	SPLEEN	EFFECTS		1.3E-2		IRIS	010076
			LIVER	EFFECTS		100			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRIBROMOBENZENE, 1,2,4- 000615-54-3									
NOAEL 5 MG/KG/DAY	ORAL, DIET	RAT 45 OR 90 DAYS	LIVER LIVER	ALTERED WEIGHT ENZYME INDUCTION		5E-2 100		IRIS	010077
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- 000076-13-1								IRIS	010460
NOEL 2000 PPM	INHALATION, INTERMITTENT	RAT 24 MONTHS	WHOLE BODY	DECREASED WEIGHT	3E+1 100	3E+0 100	3E+1 100		010376
SUBCHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0.2									
TRICHLORO-2'-HYDROXYDIPHENYLETHER, 2,2,4'- 003380-34-5									
NOEL 500 MG/KG/DAY	ORAL	RAT 4 WEEKS	WHOLE BODY	DECREASED WEIGHT		4E+0 100			005492
TRICHLOROBENZENE, 1,2,4- 000120-82-1									
NOAEL 100 PPM	ORAL DRINKING WATER	RAT	ADRENAL	INCREASED WEIGHT		1E-2 1000		IRIS	010506
SUBCHRONIC [RfD] COMMENT BASED ON A MULTIGENERATION REPRODUCTION STUDY									
NOAEL 104 PPM	INHALATION	RAT, RABBIT, DOG, MONKEY 6 AND 26 WEEKS	LIVER	NON-ADVERSE WEIGHT CHANGES	2E+0 100		2E-1 1000		010958
TRICHLOROCYCLOPENTADIENE 077323-84-3									
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005304

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRICHLOROETHANE, 1,1,1-		**000071-55-6**							
SUBCHRONIC [RfD] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300.									
TRICHLOROETHANE, 1,1,2-		**000079-00-5**							
NOAEL 3.9 MG/KG/DAY	ORAL, DRINKING WATER	MOUSE 90 DAYS	BLOOD	CLINICAL CHEMISTRY ALTERATIONS		4E-2 100		IRIS	005702
GENERAL COMMENT: ALSO SEE HEAST TABLE 3 CARCINOGENICITY									
TRICHLOROFLUOROMETHANE		**000075-69-4**							
								IRIS	005502
LOAEL 1000 MG/KG/DAY	ORAL	RAT 6 WEEKS	WHOLE BODY	INCREASED MORTALITY		7E-1 1000			005500
SUBCHRONIC [RfC] COMMENT: ALSO SEE HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHRONIC [RfC] COMMENT ALSO SEE HEAST TABLE 2 ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
TRICHLOROPHENOL, 2,3,4-		**015950-66-0**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005330
TRICHLOROPHENOL, 2,3,5-		**000933-78-8**							
GENERAL COMMENT DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005331
TRICHLOROPHENOL, 2,3,6-		**000933-75-5**							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005332

CHEMICAL LEVEL / DOSE ROUTE / SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRICHLOROPHENOL, 2,4,5- 000095-95-4							
NOEL 1000 PPM RAT							
ORAL. DIET 98 DAYS	LIVER	HEPATOTOXICITY		1E+0		IRIS	005329
	KIDNEY	EFFECTS		100			
					IRIS		010919
CHRONIC RfC COMMENT: THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (04/24/91) BY THE RfD/RfC WORK GROUP.							
TRICHLOROPHENOL, 2,4,6- 000088-06-2							
					IRIS		010461
CHRONIC RfC COMMENT THE CHRONIC INHALATION RfC IS CONSIDERED NOT VERIFIABLE (04/24/91) BY THE RfD/RfC WORK GROUP.							
GENERAL COMMENT. ALSO SEE HEAST TABLE 3: CARCINOGENICITY.							
TRICHLOROPHENOL, 3,4,5- 000609-19-8							
GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005333
TRICHLOROPHENOXY) PROPIONIC ACID, 2(2,4,5- 000093-72-1							
NOEL 0.75 MG/KG/DAY DOG							
ORAL: DIET 2 YEARS	LIVER	HISTOPATHOLOGY		8E-3		IRIS	010284
				100			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]							
TRICHLOROPHENOXYACETIC ACID, 2,4,5- 000093-76-5							
						IRIS	010178
NOEL 10 MG/KG/DAY RAT							
ORAL: DIET 90 DAYS	KIDNEY	WEIGHT EFFECTS		1E-1			010179
	LIVER	WEIGHT EFFECTS		100			
TRICHLOROPROPANE, 1,1,1- 007789-89-1							
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT							005705

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRICHLOROPROPANE, 1,1,2- 000598-77-6									
NOEL	100 MG/L	RAT							
	ORAL. DRINKING WATER	13 WEEKS	LIVER	HISTOPATHOLOGY		5E-2		IRIS	005708
			KIDNEY	HISTOPATHOLOGY		300			
			THYROID	HISTOPATHOLOGY					
TRICHLOROPROPANE, 1,2,2- 003175-23-3									
	GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								005706
TRICHLOROPROPANE, 1,2,3- 000096-18-4									
NOAEL	8 MG/KG/DAY	RAT							
	ORAL	120 DAYS	WHOLE BODY	TOXICITY		6E-2		IRIS	005714
			LIVER	LESIONS		100			
			KIDNEY	LESIONS					
			ERYTHROCYTES	DECREASED COUNT					
			BLOOD	DECREASED HEMATOCRIT					
			BLOOD	DECREASED HEMOGLOBIN					
	GENERAL COMMENT· ALSO SEE HEAST TABLE 3· CARCINOGENICITY.								
TRICHLOROPROPENE, 1,2,3- 000096-19-5									
NOEL	18 MG/CU M	DOG							
	INHALATION. INTERMITTENT	66 WEEKS	EYE	IRRITATION		5E-3		5E-3	010078
						100		100	
	SUBCHRONIC [RfD] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5								
	CHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5								

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRICHLOROTOLUENE, 2,3,6-		**002077-46-5**							
LOAEL 0.5 PPM		RAT							
	ORAL· DIET	28 DAYS	LIVER	LESIONS		5E-5			005335
			KIDNEY	LESIONS		1000			
			THYROID	LESIONS					
TRICHLOROTOLUENE, ALPHA,2,6-		**002014-83-7**							
LOAEL 0.5 PPM		RAT							
	ORAL· DIET	28 DAYS	LIVER	LESIONS		5E-5			005339
			KIDNEY	LESIONS		1000			
			THYROID	LESIONS					
TRIFLURALIN		**001582-09-8**							
NOEL 0.75 MG/KG/DAY		DOG							
	ORAL· DIET	12 MONTHS	LIVER	INCREASED WEIGHT		7 5E-3		IRIS	010080
			BLOOD	METHEMOGLOBINEMIA		100			
SUBCHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY									
TRIMETHYLBENZENES									
GENERAL COMMENT· DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									005727
TRINITROBENZENE, 1,3,5-		**000099-35-4**							
NOAEL 0 51 MG/KG/DAY		RAT							
	ORAL: WATER	16 WEEKS	SPLEEN	INCREASED WEIGHT		5E-4		IRIS	010081
						1000			
SUBCHRONIC [RfD] COMMENT· CALCULATED FROM DATA OBTAINED WITH 1,3-DINITROBENZENE.									
CHRONIC [RfD] COMMENT· CALCULATED FROM DATA OBTAINED WITH 1,3-DINITROBENZENE.									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
TRINITROPHENOLS									
GENERAL COMMENT. DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT									010082
TRINITROPHENYLMETHYLNITRAMINE 000479-45-8									
LOAEL 125 MG/KG/DAY		RABBIT							
	ORAL: GAVAGE	9 MONTHS	LIVER	HISTOPATHOLOGICAL EFFECTS		1E-1		1E-2	010377
			KIDNEY	HISTOPATHOLOGICAL EFFECTS		1000		10000	
			SPLEEN	HISTOPATHOLOGICAL EFFECTS					
TRINITROTOLUENE, 2,4,6- 000118-96-7									
LOAEL 0.5 MG/KG/DAY		DOG							
	ORAL: GAVAGE		LIVER	EFFECTS		5E-4		IRIS	010416
						1000			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									
GENERAL COMMENT ALSO SEE HEAST TABLE 3. CARCINOGENICITY									
VANADIUM 007440-62-2									
NOAEL 5 PPM		RAT							
	ORAL: DRINKING WATER	LIFETIME				7E-3		7E-3	005739
						100		100	
VANADIUM PENTOXIDE 001314-62-1									
NOAEL 17 85 PPM		RAT							
	ORAL: DIET	LIFETIME				9E-3		IRIS	005743
						100			
SUBCHRONIC [RfD] COMMENT. THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
VANADIUM SULFATE		**036907-42-3**							
NOAEL 2.24 MG/KG/DAY		RAT							
	ORAL: DRINKING WATER	LIFETIME				2E-2 100		2E-2 100	005747
VERNAM./ (VERNOLATE)		**001929-77-7**							
NOEL 1 MG/KG/DAY		RAT							
	ORAL: DIET		WHOLE BODY	DECREASED WEIGHT		1E-2 100		IRIS	010083
VINYL ACETATE		**000108-05-4**							
NOAEL 100 MG/KG/DAY		RAT							
	ORAL WATER	2 YEARS	WHOLE BODY	ALTERED WEIGHT		1E+0		1E+0	010417
			KIDNEY	ALTERED WEIGHT		100		100	
NOAEL 176 MG/CU M		MOUSE							
	INHALATION INTERMITTENT	104 WEEKS	NASAL CAVITY	LESIONS	2E-1 30		IRIS		010418
	SUBCHRONIC [RfC] COMMENT: THE CHRONIC INHALATION RfC WAS ADOPTED AS THE SUBCHRONIC INHALATION [RfC]								
VINYL CHLORIDE		**000075-01-4**							
	SUBCHRONIC [RfC] COMMENT. CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300								
	SUBCHRONIC [RfD] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300								
	GENERAL COMMENT: ALSO SEE HEAST TABLE 3. CARCINOGENICITY.								
VINYL-1-CYCLOHEXENE, 4-		**000100-40-3**							
	GENERAL COMMENT: DATA INADEQUATE FOR QUANTITATIVE RISK ASSESSMENT								010084

CHEMICAL LEVEL	DOSE ROUTE	SPECIES EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
WARFARIN		**000081-81-2**							
LOAEL	2 MG/DAY	HUMAN							
	ORAL		BLOOD	INCREASED PROTHROMBIN TIME		3E-4		IRIS	010409
						100			
SUBCHRONIC [RfD] COMMENT: THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
XYLENE, M-		**000108-38-3**							
NOAEL	250 MG/KG	RAT							
	ORAL GAVAGE	103 WEEKS	CENTRAL NERVOUS SYSTEM	HYPERACTIVITY				2E+0	005755
								100	
			WHOLE BODY	DECREASED WEIGHT					
			WHOLE BODY						
SUBCHRONIC [RfD] COMMENT. CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER· (513) 569-7300									010920
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP									
XYLENE, MIXTURE		**001330-20-7**							
								IRIS	010872
SUBCHRONIC [RfD] COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300.									010921
CHRONIC [RfC] COMMENT: THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP.									
XYLENE, O-		**000095-47-6**							
NOEL	250 MG/KG	RAT							
	ORAL GAVAGE	103 WEEKS	CENTRAL NERVOUS SYSTEM	HYPERACTIVITY				2E+0	005751
								100	
			WHOLE BODY	DECREASED WEIGHT					
SUBCHRONIC [RfD] COMMENT. CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER· (513) 569-7300.									010922
CHRONIC [RfC] COMMENT THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
XYLENE, P-		**000106-42-3**							
SUBCHRONIC [RfD] COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER· (513) 569-7300									010923
CHRONIC [RfC] COMMENT. THE CHRONIC INHALATION [RfC] IS CONSIDERED NOT VERIFIABLE (12/11/91) BY THE RfD/RfC WORK GROUP.									
ZINC (METALLIC)		**007440-66-6**							
LOAEL 1.0 MG/KG/DAY		HUMAN							
	ORAL: DIET SUPPLEMENT	10 WEEKS	BLOOD	DECREASED BLOOD ENZYME		3E-1 3		IRIS	010937
CHRONIC [RfD] COMMENT THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD].									
ZINC CYANIDE		**000557-21-1**							
NOAEL 24 3 MG/KG/DAY		RAT							
	ORAL. DIET	2 YEARS	WHOLE BODY THYROID NERVE	DECREASED WEIGHT EFFECTS MYELIN DEGENERATION		5E-2 500		IRIS	010289
SUBCHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT. CHRONIC [RfD] COMMENT CALCULATED BY ANALOGY TO FREE CYANIDE BY CORRECTING FOR DIFFERENCES IN MOLECULAR WEIGHT									
ZINC PHOSPHIDE		**001314-84-7**							
LOAEL 3.48 MG/KG/DAY		RAT							
	ORAL: DIET	13 WEEKS	WHOLE BODY WHOLE BODY	DECREASED WEIGHT DECREASED FOOD INTAKE		3E-3 1000		IRIS	010290
ZINEB		**012122-67-7**							
LOAEL 25 MG/KG/DAY		RAT							
	ORAL. DIET	2 YEARS	THYROID	HYPERPLASIA		5E-2 500		IRIS	010085
SUBCHRONIC [RfD] COMMENT· THE CHRONIC ORAL RfD WAS ADOPTED AS THE SUBCHRONIC ORAL [RfD]									

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

ACENAPHTHENE 000083-32-9

010165 US EPA 1989 MOUSE ORAL SUBCHRONIC STUDY WITH ACENAPHTHENE. STUDY CONDUCTED BY HAZELTON LABORATORIES, INC , FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1989 RfD/RfC WORK GROUP

ACENAPHTHYLENE 000208-96-8

005202 US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR ACENAPHTHYLENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

ACEPHATE 030560-19-1

005833 CHEVRON CHEMICAL COMPANY 1987 CONFIDENTIAL BUSINESS INFORMATION UNPUBLISHED DATA MRID NO 40504819

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ACEPHATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 RfD/RfC WORK GROUP

ACETONE 000067-64-1

005204 US EPA 1986 NINETY-DAY GAVAGE STUDY IN ALBINO RATS USING ACETONE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1988 UPDATED HEALTH EFFECTS ASSESSMENT FOR ACETONE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

ACETONE CYANOHYDRIN / (METHYLLACTONITRILE) 000075-86-5

005776 HAZELTON LABORATORIES AMERICA 1988 SUBCHRONIC TOXICITY STUDY IN RATS WITH 2-METHYLLACTONITRILE HLA STUDY NO 2399-114 REPORT PREPARED FOR DYNAMAC CORPORATION

US EPA 1994 RfD/RfC WORK GROUP

ACETONITRILE 000075-05-8

005210 NATIONAL TOXICOLOGY PROGRAM (NTP) 1983 90-DAY SUBCHRONIC TOXICITY STUDIES OF ACETONITRILE IN RATS AND MICE REPORT TO NATIONAL TOXICOLOGY PROGRAM.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR ACETONITRILE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

ACETOPHENONE 000098-86-2

005212 HAGAN, EC, WH HANSEN, DG FITZHUGH, ET AL. 1967 FOOD FLAVORINGS AND COMPOUNDS OF RELATED STRUCTURE II. SUBACUTE AND CHRONIC TOXICITY. FOOD COSMET TOXICOL 5(2): 141-157

US EPA 1987. RfD/RfC WORK GROUP.

010874 US EPA 1992 RfD/RfC WORK GROUP

ACROLEIN 000107-02-8

010390 NEWELL GW. 1958 ACUTE AND SUBACUTE TOXICITY OF ACROLEIN STANFORD RESEARCH INSTITUTE. SRI PROJECT NO. 5-868-2.

NAS (NATIONAL ACADEMY OF SCIENCES). 1977. DRINKING WATER AND HUMAN HEALTH. WASHINGTON, DC

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ACROLEIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010856 FERON VJ, A KRUYSSE, HP TIL, AND HR IMMEL 1978. REPEATED EXPOSURE TO ACROLEIN VAPOR. SUBACUTE STUDIES IN HAMSTERS, RATS AND RABBITS. TOXICOLOGY. 9· 47-57.

US EPA 1991 RfD/RfC WORK GROUP.

ACRYLAMIDE 000079-06-1

005835 BUREK JD, RR ALBEE, JE BEYER, ET AL. 1980 SUBCHRONIC TOXICITY OF ACRYLAMIDE ADMINISTERED TO RATS IN THE DRINKING WATER FOLLOWED BY UP TO 144 DAYS OF RECOVERY J ENVIRON PATHOL TOXICOL. 4. 157-182.

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ACRYLAMIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988. RFD/RFC WORK GROUP.

010876 US EPA. 1990 RfD/RfC WORK GROUP

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

ACRYLIC ACID 000079-10-7

005836 BASF. 1993. REPRODUCTION TOXICITY STUDY WITH ACRYLIC ACID IN RATS· CONTINUOUS ADMINISTRATION IN THE DRINKING WATER OVER 2 GENERATIONS (1 LITTER IN THE FIRST AND 1 LITTER IN THE SECOND GENERATION) PROJECT NO 71R0114/92011. BASF AKTIENGELLSCHAFT, DEPT. OF TOXICOLOGY, RHEIN, FRG.

US EPA 1994. RfD/RfC WORK GROUP

010346 MILLER, RR, JA AYERS, GC JERSEY AND MJ MCKENNA 1981. INHALATION TOXICITY OF ACRYLIC ACID FUND APPL TOXICOL 1(3) 271-277.

MILLER, RR, JA AYERS, GC JERSEY. 1979 ACRYLIC ACID 90-DAY VAPOR INHALATION STUDY WITH RATS AND MICE FINAL REPORT #79RC-1024 TOXICOLOGY RESEARCH LABORATORY, HEALTH AND ENVIRONMENTAL SCIENCE, DOW CHEMICAL COMPANY, MIDLAND, MI.

US EPA. 1990. RfD/RfC WORK GROUP.

ACRYLONITRILE 000107-13-1

010939 TANDON R, DK SAXENA, SV CHANDRA, PK SETH, SP SRIVASTAVA 1988. TESTICULAR EFFECTS OF ACRYLONITRILE IN MICE TOXICOLOGY LETTERS. 42 55-63

BIODYNAMICS 1980. A TWENTY-FOUR MONTH ORAL TOXICITY/CARCINOGENICITY STUDY OF ACRYLONITRILE ADMINISTERED TO SPARTAN RATS IN THE DRINKING WATER, VOL 1-2 PREPARED BY BIODYNAMICS, INC., DIVISION OF BIOLOGY AND SAFETY EVALUATION, EAST MILLSTONE, NJ. FOR MONSANTO COMPANY, ST LOUIS, MO.

US EPA 1993 RfD/RfC WORK GROUP.

ADIPONITRILE 000111-69-3

005157 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ADIPONITRILE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ALACHLOR 015972-60-8

005837 MONSANTO CO 1984. MRID NO 00148923. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC, 20460.

US EPA. 1992 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ALACHLOR PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE OF THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALACHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1991. RfD/RfC WORK GROUP

ALDICARB 000116-06-3

010960 RHONE-POULENC AG COMPANY 1992. MRID NO 423730-01. HED DOC NO 010459 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

UNION CARBIDE CORP 1971. R HAINES, JB DERNEHL, JB BLOCK, SUPERVISING PHYSICIANS INGESTION OF ALDICARB BY HUMAN VOLUNTEERS A CONTROLLED STUDY OF THE EFFECTS OF ALDICARB ON MAN ALD-03-77-2215 FEB 11, 1971 MRID NO 00101911 HED DOC NO 010450 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

GOLDMAN LR, M BELLER, RJ JACKSON 1990 ALDICARB FOOD POISONING IN CALIFORNIA, 1985-1988. TOXICITY ESTIMATES FOR HUMANS ARCH ENVIRON HEALTH. 45(3): 141-147. HED DOC NO 010451, 010455, 010458. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

GOLDMAN, LR, DF SMITH, RR NEUTRA ET AL 1990 PESTICIDE FOOD POISONING FROM CONTAMINATED WATERMELONS IN CALIFORNIA, 1985 ARCH ENVIRON HEALTH 45(4) 229-236

HIRSCH GH, BT MORI, GB MORGAN, PR BENNET, BC WILLIAMS 1987 REPORT OF ILLNESSES CAUSED BY ALDICARB-CONTAMINATED CUCUMBERS FOOD ADDITIVES AND CONTAMINANTS 5(2) 155-60 HED DOC NO 010455, 010458. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 020460

US EPA 1992. RfD/RfC WORK GROUP

ALDRIN 000309-00-2

005159 FITZHUGH OG, AA NELSON AND ML QUAIFE 1964. CHRONIC ORAL TOXICITY OF ALDRIN AND DIELDRIN IN RATS AND DOGS FOOD COSMET TOXICOL 2 551-562

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR ALDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1985 RfD/RfC WORK GROUP.

ALLIDOCHLOR 000093-71-0

005838 US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALLIDOCHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ALLYL ALCOHOL 000107-18-6

005839 CARPANINI FMB, IF GAUNT, J HARDY, ET AL. 1978 SHORT-TERM TOXICITY OF ALLYL ALCOHOL IN RATS TOXICOLOGY 9· 29-45

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALLYL ALCOHOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

ALLYL CHLORIDE **000107-05-1**

010369 BOQUIN, L, D SHUWEI, Y AIRU, ET AL. 1982 STUDIES ON THE TOXICITY OF ALLYL CHLORIDE ECOTOXICOL ENVIRON SAF 6 19-27

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALLYL CHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ALUMINUM **007429-90-5**

005162 US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR ALUMINUM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

ALUMINUM PHOSPHIDE **020859-73-8**

010255 HACKENBURG U 1972. CHRONIC INGESTION BY RATS OF STANDARD DIET TREATED WITH ALUMINUM PHOSPHIDE. TOXICOL APPL PHARMACOL 23(1) 147-158.

US EPA 1985 RfD/RfC WORK GROUP

AMETRYN **000834-12-8**

005841 CIBA-GEIGY CORPORATION. 1961 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO 00034843 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR AMETRYN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP

AMINO-2-NAPHTHOL, 1- **002834-92-6**

005842 US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1-AMINO-2-NAPHTOL AND 1-AMINO-2-NAPHTOL HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

AMINO-2-NAPHTOL HYDROCHLORIDE, 1- **001198-27-2**

005843 US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1-AMINO-2-NAPHTOL AND 1-AMINO-2-NAPHTOL HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

AMINOPHENOL, M- **000591-27-5**

005844 RE TA, RF LOEHR, SC RODRIGUEZ, ET AL 1984. RESULTS OF TERATOGENICITY TESTING OF M-AMINOPHENOL IN SPRAGUE-DAWLEY RATS FUND APPL TOXICOL. 4(1) 98-104

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR AMINOPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

AMINOPHENOL, O- **000095-55-6**

005845 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR AMINOPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

AMINOPHENOL, P- **000123-30-8**

005846 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR AMINOPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

AMINOPYRIDINE, 4- **000504-24-5**

005847 KOHN FE 1968. FOUR-WEEK SUBACUTE ORAL TOXICITY OF COMPOUND 1861 HYDROCHLORIDE --ALBINO RATS. (UNPUBLISHED STUDY) PREPARED BY INDUSTRIAL BIOTEST LABORATORIES, INC. UNDER 224-12 SUBMITTED BY PHILLIPS PETROLEUM CO., BARTLESVILLE, OK CDL. 229844-E

US EPA 1980. 4-AMINOPYRIDINE. AVITROL PESTICIDE REGISTRATION STANDARD PREPARED BY THE OFFICE OF PESTICIDE PROGRAMS, US EPA, WASHINGTON, DC NTIS PB84-209907.

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 4-AMINOPYRIDINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

AMMONIA **007664-41-7**

005166 CAMPBELL CL, RK DAWES, S DEOLALKAR AND MC MERRITT 1958 EFFECT OF CERTAIN CHEMICALS IN WATER ON THE FLAVOR OF BREWED COFFEE FOOD RES 23: 575-579. CITED IN US EPA, 1981.

WHO (WORLD HEALTH ORGANIZATION) 1986. ENVIRONMENTAL HEALTH CRITERIA 54. AMMONIA WHO, GENEVA, SWITZERLAND

US EPA. 1981. AMBIENT WATER QUALITY CRITERION FOR THE PROTECTION OF HUMAN HEALTH: AMMONIA PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR AMMONIA. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

010392 HOLNESS DL, JT PURDHAM AND JR NETHERCOTT 1989. ACUTE AND CHRONIC RESPIRATORY EFFECTS OF OCCUPATIONAL EXPOSURE TO AMMONIA AMIND HYG ASSOC J. 50: 646-650

BRODERSON JR, JR LINDSEY AND JE CRAWFORD. 1976 THE ROLE OF ENVIRONMENTAL AMMONIA IN RESPIRATORY MYCOPLASMOSIS OF RATS AM J PATHOL 85 115-130.

US EPA. 1991 RfD/RfC WORK GROUP

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

ANILINE 000062-53-3

010370 OBERST FW, E HACKLEY, C COMSTOCK 1956. CHRONIC TOXICITY OF ANILINE VAPOR (5PPM) BY INHALATION. ARCH IND HEALTH 13:379-384

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1990 RfD/RfC WORK GROUP.

ANTHRACENE 000120-12-7

010166 US EPA 1989. SUBCHRONIC TOXICITY IN MICE WITH ANTHRACENE FINAL REPORT. HAZELTON LABORATORIES AMERICA, INC PREPARED FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1991. DRINKING WATER CRITERIA DOCUMENT FOR ANTHRACENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA. 1989. RfD/RfC WORK GROUP.

010964 US EPA. 1994. RfD/RfC WORK GROUP

ANTIMONY PENTOXIDE 001314-60-9

005174 SCHROEDER HA, M MITCHENER AND AP NASON 1970 ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS: LIFE-TIME STUDIES J NUTR 100 59-66.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR ANTIMONY AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANTIMONY OXIDES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ANTIMONY POTASSIUM TARTRATE 000304-61-0

005234 SCHROEDER HA, M MITCHENER AND AP NASON. 1970 ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS LIFE-TIME STUDIES. J NUTR 100. 59-69.

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR ANTIMONY AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANTIMONY OXIDES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ANTIMONY TETROXIDE 001332-81-6

005238 SCHROEDER HA, M MITCHENER AND AP NASON 1970. ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS LIFE-TIME STUDIES. J NUTR 100 59-69.

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR ANTIMONY AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANTIMONY OXIDES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ANTIMONY TRIOXIDE 001309-64-4

005242 SCHROEDER HA, M MITCHENER AND AP NASON 1970. ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS LIFE-TIME STUDIES J NUTR 100. 59-69

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR ANTIMONY AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANTIMONY OXIDES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

010974 NEWTON PE, HF BOLTS, IW DALY ET AL 1994 SUBCHRONIC AND CHRONIC INHALATION TOXICITY OF ANTIMONY TRIOXIDE IN THE RAT FUND APPL TOXICOL 32 561-576

US EPA 1995 RfD/RfC WORK GROUP

ANTIMONY, METALLIC 007440-36-0

005170 SCHROEDER HA, M MITCHENER AND AP NASON 1970 ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS· LIFE-TIME STUDIES. J NUTR 100· 59-66

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR ANTIMONY AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANTIMONY OXIDES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ARAMITE 000140-57-8

005849 OSER BL, M OSER. 1962 2-(P-TERT-BUTYLPHENOXY)ISOPROPYL 2-CHLOROETHYL SULFITE (ARAMITE) II CARCINOGENICITY TOXICOL APPL PHARMACOL. 4: 70-88.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ARAMITE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

005850 POPPER H, SS STERNBERG, BL OSER AND M OSER 1960. THE CARCINOGENIC EFFECT OF ARAMITE IN RATS CANCER 13(5). 1035-1046

OSER BL AND M OSER. 1962. 2-(P-TERT-BUTYLPHENOXY)ISOPROPYL 2-CHLOROETHYL SULFITE (ARAMITE). CARCINOGENICITY. TOXICOL APPL PHARMACOL. 4 70-88

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ARAMITE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

AROCLOR 1248 012672-29-6

010940 US EPA. 1993 RfD/RfC WORK GROUP.

AROCLOR 1254 011097-69-1

010963 US EPA 1994. RfD/RfC WORK GROUP.

ARSENIC, INORGANIC 007440-38-2

010434 TSENG WP 1977 EFFECTS AND DOSE-RESPONSE RELATIONSHIPS OF SKIN CANCER AND BLACKFOOT DISEASE WITH ARSENIC ENVIRON. HEALTH PERSPECT. 19 109-119.

TSENG, WP, HM CHU, SW HOU, JM FONG, CS LIN, S YEH 1968 PREVALENCE OF SKIN CANCER IN AN ENDEMIC AREA OF CHRONIC ARSENICISM IN TAIWAN J NATL CANCER INST 40 453-463

US EPA 1990 RfD/RfC WORK GROUP.

ATRAZINE 001912-24-9

010855 CIBA-GEIGY CORP 1986 MRID NO 00141874, 00157875, 00158930, 40629302. HED DOC NO 005940, 006937. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

CIBA-GEIGY CORP. AGRICULTURAL DIVISION 1987 MRID NO 40431301, 41293801 HED DOC NO 006718, 006937, 007647 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1992 RfD/RfC WORK GROUP.

BARIUM 007440-39-3

010348 WONES, RG, BL STADLER, LA FROHMAN 1990. LACK OF EFFECT OF DRINKING WATER BARIUM ON CARDIOVASCULAR RISK FACTOR. ENVIRON HEALTH PERSPECT 85: 1-13.

BRENNIMAN, GR, PS LEVY 1984 HIGH BARIUM LEVELS IN PUBLIC DRINKING WATER AND ITS ASSOCIATION WITH ELEVATED BLOOD PRESSURE IN: ADVANCES IN MODERN TOXICOLOGY IX, EJ CLALBRESE, ED. PRINCETON SCIENTIFIC PUBLICATIONS, PRINCETON, NJ P231-249

US EPA. 1985. DRINKING WATER CRITERIA DOCUMENT FOR BARIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC. EXT REVIEW DRAFT. FINAL DRAFT (ON PUBLIC COMMENT). NTIS PB 86-118031/AS.

US EPA 1990 RfD/RfC WORK GROUP

BARIUM CYANIDE 000542-62-1

010941 US EPA. 1993 RfD/RfC WORK GROUP

BENEFIN 001861-40-1

005852 ELI LILLY AND CO 1972. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO. 00037678 AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENEFIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1985 RfD/RfC WORK GROUP

BENZAL CHLORIDE 000098-87-3

005853 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENZAL CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BENZALDEHYDE 000100-52-7

005854 KLUWE WM, CA MONTGOMERY, HD GILES AND JD PREJEAU. 1983. ENCEPHALOPATHY IN RATS AND NEPHROPATHY IN RATS AND MICE AFTER SUBCHRONIC ORAL EXPOSURE TO BENZALDEHYDE. FOOD CHEM TOXICOL. 21(3) 245-250.

US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENZALDEHYDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

BENZALDEHYDE CYANOHYDRIN 000532-28-5

005781 US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYANOHYDRINS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BENZO[A]ANTHRACENE 000056-55-3

010965 US EPA. 1994 RfD/RfC WORK GROUP

BENZENE 000071-43-2

010857 US EPA. 1989 RfD/RfC WORK GROUP.

BENZENETHIOL / (THIOPHENOL) 000108-98-5

010942 AMERICAN BIOGENICS CORP 1989. NINETY-DAY GAVAGE STUDY IN ALBINO RATS USING THIOPHENOL. PREPARED BY DYNAMAC CORP OF ROCKVILLE, MD FOR THE US EPA OFFICE OF SOLID WASTE

FAIRCHILD EJ AND HE STOKINGER 1958 TOXICOLOGIC STUDIES ON ORGANIC SULFUR COMPOUNDS. 1 ACUTE TOXICITY OF SOME ALIPHATIC AND AROMATIC THIOLS (MERCAPTANS) AM IND HYG ASSOC J. 19: 171-189.

US EPA 1993 RfD/RfC WORK GROUP

BENZIDINE 000092-87-5

005830 LITTLEFIELD NA, CJ NELSON AND CH FRITH. 1983 BENZIDINE DIHYDROCHLORIDE· TOXICOLOGICAL ASSESSMENTS IN MICE DURING CHRONIC EXPOSURE J TOXICOL. ENVIRON. HEALTH, 12 671-685.

US EPA. 1987. RfD/RfC WORK GROUP

010877 US EPA. 1991. RfD/RfC WORK GROUP

BENZOIC ACID 000065-85-0

005260 FDA (FOOD AND DRUG ADMINISTRATION). 1973. EVALUATION OF THE HEALTH ASPECTS OF BENZOIC ACID AND SODIUM BENZOATE AS FOOD INGREDIENTS DHEW, WASHINGTON, DC REPORT NO. SCOGS-7 NTIS PB-223 837/6 P 17

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BENZOIC ACID PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP.

BENZYL ALCOHOL 000100-51-6

005855 NTP (NATIONAL TOXICOLOGY PROGRAM). 1988 TOXICOLOGY AND CARCINOGENESIS STUDIES OF BENZYL ALCOHOL (CAS NO 100-51-6) IN F344/NRATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP TECHNICAL REPORT. NTP TR 343. P 1-161.

005856 NTP (NATIONAL TOXICOLOGY PROGRAM) 1988. TOXICOLOGY AND CARCINOGENESIS STUDIES OF BENZYL ALCOHOL (CAS NO 100-51-6) IN F344/NRATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP TECHNICAL REPORT. NTP TR 343. P 1-161.

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BENZYL ALCOHOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

BERYLLIUM 007440-41-7

005262 SCHROEDER HA AND M MITCHNER 1975. LIFE-TERM STUDIES IN RATS: EFFECTS OF ALUMINUM. BARIUM. BERYLLIUM AND TUNGSTEN. J NUTR. 105: 421-427.

US EPA. 1991 DRINKING WATER CRITERIA DOCUMENT FOR BERYLLIUM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF DRINKING WATER. WASHINGTON. DC.

US EPA. 1985. RfD/RfC WORK GROUP.

BIPHENYL, 1,1' 000092-52-4

005857 AMBROSE AM. AN BOOTH. F DE EDS AND AJ COS JR. 1960. A TOXICOLOGICAL STUDY OF BIPHENYL. A CITRUS FUNGISTAT FOOD RES. 25. 328-336.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,1'-BIPHENYL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1985. RfD/RfC WORK GROUP.

010878 US EPA 1990 RfD/RfC WORK GROUP.

BIS(2-CHLOROISOPROPYL) ETHER 039638-32-9

010257 MITSUMORI K. T USUI. K TAKAHASHI. AND Y SHIRASU. 1979 TWENTY-FOUR MONTH CHRONIC TOXICITY STUDIES OF DICHLORODIISOPROPYL ETHER IN MICE. NIPPON NOYAKU GAKKAISHI 4(3) 323-335

US EPA. 1989 RfD/RfC WORK GROUP.

BIS(2-ETHYLHEXYL) PHTHALATE / (DEHP) 000117-81-7

010859 CARPENTER, CP, CS WEIL AND HF SMYTH 1953 CHRONIC ORAL TOXICITY OF DI(2-ETHYLHEXYL) PHTHALATE FOR RATS, GUINEA PIGS AND DOGS. ARCH IND HYG OCC MED. 8: 219-226.

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

US EPA 1986. RfD/RfC WORK GROUP.

BISPHENOL A 000080-05-7

005268 NTP (NATIONAL TOXICOLOGY PROGRAM). 1982. CARCINOGENESIS BIOASSAY OF BISPHENOL A IN F344 RATS AND B6C3F1 MICE (FEED STUDY) NTP TECH REP SER NO 80-35 NTIS PB 84-1555308 P 192.

US EPA 1988 RfD/RfC WORK GROUP.

005266 NTP (NATIONAL TOXICOLOGY PROGRAM). 1982 CARCINOGENESIS BIOASSAY OF BISPHENOL A IN F344 RATS AND B6C3F1 MICE (FEED STUDY). NTP TECH REP SER. NO 80-35 NTIS PB 84-1555308 P. 192

US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BISPHENOL A. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BORON TRIFLUORIDE 007637-07-2

010395 RUSCH GM, GM HOFFMAN, RF MCCONNELL ET AL. 1986. INHALATION TOXICITY STUDIES WITH BORON TRIFLUORIDE. TOXICOL APPL PHARMACOL 83: 69-78.

US EPA 1991 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BORON AND BORON COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BORON, ELEMENTAL 007440-42-8

005272 WEIR RJ, JR AND RS FISHER 1972 TOXICOLOGIC STUDIES ON BORAX AND BORIC ACID TOXICOL APPL PHARMACOL 23(3) 351-364

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR BORON AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1989 RfD/RfC WORK GROUP

US EPA. 1993. REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR BORON. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

005269 GARABRANT DH, L BERNSTEIN, JM PETERS ET AL 1985. RESPIRATORY EFFECTS OF BORAX DUST BR J IND MED. 42: 831-837

US EPA. 1991 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BORON AND BORON COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BROMINATED DIBENZO-P-DIOXINS

005858 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIBENZO-P-DIOXINS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIBENZOFURANS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BROMINATED DIBENZOFURANS

005859 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIBENZOFURANS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIBENZO-P-DIOXINS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BROMOACETONE 000598-31-2

005860 US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOACETONE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BROMOCHLOROETHANES

005861 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOCHLOROETHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

BROMODICHLOROMETHANE 000075-27-4

005715 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986. TOXICITY AND CARCINOGENICITY STUDIES OF BROMODICHLOROMETHANE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP TECH REPORT, SER NO 321, NIH PUB NO 87-2537

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR TRIHALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987. RfD/RfC WORK GROUP

BROMOETHENE / (VINYL BROMIDE) 000593-60-2

010929 BENYA TJ, WM BUSEY, MA DORATO AND PE BERTEAU 1982. INHALATION CARCINOGENICITY BIOASSAY OF VINYL BROMIDE IN RATS TOXICOL APPL PHARMACOL 64(3). 367-379.

BUSEY WM. 1979. ONCOGENIC POTENTIAL OF VINYL BROMIDE DURING CHRONIC INHALATION EXPOSURE -- RATS PATHOLOGY REPORT. EPA/OTS 8EHQ-0479-0281.

US EPA. 1993. RfD/RfC WORK GROUP

BROMOFORM 000075-25-2

005722 NTP (NATIONAL TOXICOLOGY PROGRAM) 1989. TOXICOLOGY AND CARCINOGENICITY STUDIES OF TRIBROMOMETHANE AND BROMOFORM IN F344 RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP-350

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BROMOFORM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987 HEALTH AND ENVIRONMENTAL ASSESSMENT FOR TRIHALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

010961 US EPA 1993. RfD/RfC WORK GROUP

REFERENCES FOR HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

BROMOMETHANE 000074-83-9

010861 DANSE LH, FL VAN VELSEN AND CA VAN DER HEIJDEN 1984 METHYL BROMIDE: CARCINOGENIC EFFECTS IN THE RAT FORESTOMACH. TOXICOL APPL PHARMACOL. 72: 262-271

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR BROMOMETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL BROMIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP

US EPA. 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR BROMOMETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

010860 REUZEL, PGJ, CF KUPER, HC DREEF-VAN DER MEULEN, VMH HOLLANDERS 1987 CHRONIC (29 MONTH) INHALATION TOXICITY AND CARCINOGENICITY STUDY OF METHYL BROMIDE IN RATS. REPORT NO. V86.469/221044. NETHERLANDS ORGANIZATION FOR APPLIED SCIENTIFIC RESEARCH, DIVISION FOR NUTRITION AND FOOD RESEARCH, TNO. EPA/OTS DOCUMENT #86-8700001202.

REUZEL, PGJ, HC DREEF-VANDER MEULEN, VMH HOLLANDERS, CF KUPER, VJ FERON, CA VAN DER HEIJDEN 1991 CHRONIC INHALATION TOXICITY AND CARCINOGENICITY STUDY OF METHYL BROMIDE IN WISTAR RATS. FOOD CHEM TOXICOL 29(1): 31-39.

US EPA 1991. RfD/RfC WORK GROUP.

BROMOPHENYL PHENYL ETHER, 4- 000101-55-3

005864 US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 4-BROMOPHENYL PHENYL ETHER. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BROMOPHOS 002104-96-3

005865 LEUSCHNER F, A LEUSCHNER AND E POPPE. 1967. CHRONISCHER REPRODUKTIONSVERSUCH UBER 3 GENERATIONEN AN WISTAR-RATTEN BEI FORTDAUERNER VERABREICHUNG VON BROMOPHOS REPORT CH BOEHRINGER SOHN. (UNPUBLISHED).

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOPHOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

BROMOXYNIL **001689-84-5**

005866 UNION CARBIDE AGRICULTURE PRODUCTS, INC 1982 CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY, MRID NO 00096521 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOXYNIL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

BROMOXYNIL OCTANOATE **001689-99-2**

005867 UNION CARBIDE AGRICULTURE PRODUCTS, INC 1982 CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY MRID NO 00096521. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOXYNIL OCTANOATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

BUSAN 77 **031512-74-0**

005868 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BUSAN 77 PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BUSAN 90 **002491-38-5**

005869 US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BUSAN 90 PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BUTANOL, 1- **000071-36-3**

005870 US EPA 1986 BUTANOL RAT ORAL SUBCHRONIC TOXICITY STUDY OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1-BUTANOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

BUTYL BENZYL PHTHALATE, N- **000085-68-7**

005616 NTP (NATIONAL TOXICOLOGY PROGRAM) 1985. PROJECT NO 12307-02, -03 HAZELTON LABORATORIES AMERICA, INC. UNPUBLISHED STUDY

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR SELECTED PHTHALIC ACID ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS (PAE)S PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BUTYL BENZYL PHTHALATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1989 RfD/RfC WORK GROUP.

BUTYLATE **002008-41-5**

005871 STAUFFER CHEMICAL COMPANY. 1987 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO. 40289101 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BUTYLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1989 RfD/RfC WORK GROUP

BUTYLCHLORIDE, T- **000507-20-0**

005810 US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR MONOCHLOROBUTANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BUTYROLACTONE, GAMMA- **000096-48-0**

005872 US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BUTYROLACTONE, GAMMA. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CACODYLIC ACID **000075-60-5**

005873 NEES PO 1968. REPORT ON CACODYLIC ACID TOXICITY TO ANIMALS WISCONSIN ALUMNI RES FOUND. EPA PESTICIDE PETITION NO OF 0911

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CACODYLIC ACID. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CADMIUM 007440-43-9

005280 US EPA 1985 DRINKING WATER CRITERIA DOCUMENT ON CADMIUM OFFICE OF DRINKING WATER, WASHINGTON, DC. FINAL DRAFT

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CADMIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC. EPA-440/5-80-025

US EPA 1988 RfD/RfC WORK GROUP.

CALCIUM CYANIDE 000592-01-8

010258 HOWARD JW AND RF HANZAL 1955. CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE. AGRIC FOOD CHEM. 3· 325-329

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON 1979. EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS J TOXICOL ENVIRON HEALTH 5 579-592

US EPA. 1985 RfD/RfC WORK GROUP

CAPROLACTAM 000105-60-2

005284 SEROTA DG, AM HOBERMAN AND SC GAD. 1984 A THREE-GENERATION REPRODUCTION STUDY WITH CAPROLACTAM IN RATS. IN: PROCEEDINGS OF A SYMPOSIUM ON AN INDUSTRY APPROACH TO CHEMICAL RISK ASSESSMENT CAPROLACTAM AND RELATED COMPOUNDS AS A CASE STUDY INDUSTRY HEALTH FOUND ARLINGTON, VA , P 191-204.

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CAPROLACTAM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 RfD/RfC WORK GROUP.

005282 POWERS WJ, JR, JC PECKHAM, KM SIINO AND SC GAD. 1984. EFFECTS OF SUBCHRONIC DIETARY CAPROLACTAM ON RENAL FUNCTION IN· PROCEEDINGS OF A SYMPOSIUM ON AN INDUSTRY APPROACH TO CHEMICAL RISK ASSESSMENT· CAPROLACTAM AND RELATED COMPOUNDS AS A CASE STUDY INDUSTRY HEALTH FOUND. ARLINGTON, VA

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CAPROLACTAM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010966 US EPA 1994 RfD/RfC WORK GROUP

CAPTAFOL **002425-06-1**

005874 ORTHO-CHEVRON CHEMICAL COMPANY 1985. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. ACCESSION NO 260671. MRID NO. 00149488. 00155196 AVAILABLE FROM EPA. WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CAPTAFOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1987. RFD/RFC WORK GROUP

CAPTAN **000133-06-2**

005875 CHEVRON CHEMICAL COMPANY 1982 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO 00125293 AVAILABLE FROM EPA WRITE TO FOI. EPA. WASHINGTON. DC 20460.

STAUFFER CHEMICAL COMPANY 1982 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 00120315 AVAILABLE FROM EPA. WRITE TO FOI. EPA. WASHINGTON. DC 20460.

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CAPTAN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1989. RfD/RfC WORK GROUP.

CARBARYL **000063-25-2**

005876 CARPENTER CP. CW WEIL. PE POLIN. ET AL 1961 MAMMALIAN TOXICITY OF 1-NAPHTHYL-N-METHYLCARBAMATE (SEVIN INSECTICIDE) J AGRIC FOOD CHEM. 9. 30-39

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CARBARYL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA 1985 RfD/RfC WORK GROUP.

010882 US EPA. 1991 RfD/RfC WORK GROUP

CARBOFURAN **001563-66-2**

005877 FMC CORPORATION. 1983. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. ACCESSION NO 250740-250755. MRID NO. 00129507. AVAILABLE FROM EPA. WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CARBOFURAN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA 1987 RfD/RfC WORK GROUP

CARBON DISULFIDE 000075-15-0

010259 HARDIN BD, GP BOND, MR SIKOR, FD ANDREW, RP BELILES AND RW NIEMEIR 1981. TESTING OF SELECTED WORKPLACE CHEMICALS FOR TERATOGENIC POTENTIAL. SCAND J WORK ENVIRON HEALTH. 7(SUPPL 4) 66-75.

US EPA. 1985 RfD/RfC WORK GROUP

010975 JOHNSON BL, J BOYD, JR BURG ET AL. 1983. EFFECTS ON THE PERIPHERAL NERVOUS SYSTEM OF WORKERS' EXPOSURE TO CARBON DISULFIDE. NEUROTOXICOLOGY 4 53-66.

US EPA 1995 RfD/RfC WORK GROUP.

CARBON MONOXIDE 000630-05-0

010493 REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS.

CARBON TETRACHLORIDE 000056-23-5

010862 BRUCKNER, JV, WF MACKENZIE, S MURALIDHARA, ET AL 1986 ORAL TOXICITY OF CARBON TETRACHLORIDE: ACUTE, SUBACUTE AND SUBCHRONIC STUDIES IN RATS. FUND APPL TOXICOL. 6(1) 16-34.

US EPA. 1985 RfD/RfC WORK GROUP.

CHLORAL 000075-87-6

005290 SANDERS VM, BM KAUFFMANN, KL WHITE, JR. 1982 TOXICOLOGY OF CHLORAL HYDRATE IN THE MOUSE. ENVIRON HEALTH PERSPECT. 44. 146-173.

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORAL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1988 RfD/RfC WORK GROUP

CHLORDANE 000057-74-9

005296 VELSICOL CHEMICAL CORP. 1983. ACC NO 252267, MRID NO 00138591, 00144313. AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1989 RfD/RfC WORK GROUP

CHLORINE CYANIDE 000506-77-4

010261 HOWARD JW AND RF HANZAL 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE. AGRIC FOOD CHEM. 3: 325-329

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON 1979. EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS. J TOXICOL ENVIRON HEALTH. 5: 579-592

US EPA. 1985 RfD/RfC WORK GROUP

CHLORO-1,3-BUTADIENE, 2- / (CHLOROPRENE) 000126-99-8

010515 NTP (NATIONAL TOXICOLOGY PROGRAM) 1988 SUBCHRONIC INHALATION TOXICITY STUDY OF CHLOROPRENE IN MICE AND RATS. CONDUCTED BY BATELLE PACIFIC NORTHWEST LABORATORY, RICHLAND, WA.

US EPA. 1992. RfD/RfC WORK GROUP.

CHLORO-M-CRESOL, P- 000059-50-7

005366 MADSEN C, PH ANDERSEN, O MEYER AND G WURTZEN. 1986. 4-CHLORO-E-METHYLPHENOL: SALMONELLA/MAMMALIAN-MICROSOME MUTAGENICITY TEST AND SUBACUTE TOXICITY TEST IN RATS. BULL ENVIRON CONTAM TOXICOL. 37(5). 651-654

US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR P-CHLORO-M-CRESOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROACETALDEHYDE 000107-20-0

005342 US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROACETALDEHYDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROACETIC ACID 000079-11-8

005346 IRDC (INTERNATIONAL RESEARCH AND DEVELOPMENT CORPORATION) 1982 SUBCHRONIC ORAL TOXICITY TEST WITH MONOCHLOROACETIC ACID IN RATS NATIONAL TOXICOLOGY PROGRAM, BETHESDA, MD P 1-101

US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROACETIC ACID. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROANILINE, 2- 000095-51-2

005347 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROANILINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROANILINE, 3- 000108-42-9

005348 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROANILINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROANILINE, 4- 000106-47-8

005349 NCI (NATIONAL CANCER INSTITUTE) 1979 BIOASSAY OF P-CHLOROANILINE FOR POSSIBLE CARCINOGENICITY NCI CARC TECH REP SER NO. 189 NTIS PB-295896

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROANILINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1987 RfD/RfC WORK GROUP

CHLOROBENZENE 000108-90-7

010863 MONSANTO COMPANY 1967 13-WEEK ORAL ADMINISTRATION--DOGS MONOCHLOROBENZENES FINAL REPORT PROJECT NO 241-105. FEBRUARY 24. PREPARED BY HAZELTON LABORATORIES

KNAPP, WK, WM BUSEY, AND W KUNDZINS 1971 SUBACUTE ORAL TOXICITY OF MONOCHLOROBENZINE IN DOGS AND RATS TOXICOL APPL PHARMACOL. 19: 393 (ABSTRACT)

US EPA 1985 HEALTH ASSESSMENT DOCUMENT FOR CHLORINATED BENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. EPA 600/8-84-015F NTIS PB85-150332.

US EPA. 1989 UPDATED HEALTH EFFECTS ASSESSMENT FOR CHOLOROBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1989 RfD/RfC WORK GROUP.

CHLOROBENZILATE 000510-15-6

010260 CIBA-GEIGY CORPORATION 1984 MRID NO 00144691 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1991 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROBENZILATE PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEATH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

US EPA. 1989. RfD/RfC WORK GROUP

010931 US EPA 1993 RfD/RfC WORK GROUP

CHLOROBENZOIC ACID, P- 000074-11-3

005360 KIECKEBUSCH W. W GRIEM AND K LANG 1960 THE TOLERABILITY OF P-CHLOROBENZOIC ACID ARZNEIMI HEL-FORSCH 10 999-10001

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR P-CHLOROBENZOIC ACID PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROBENZOTRIFLUORIDE, 4- 000098-56-6

005364 HOOKER CHEMICAL CORP. 1981 MODIFIED 90-DAY GAVAGE AND REPRODUCTION STUDY IN RATS PCBTF CONDUCTED BY ELARS BIORESEARCH LABORATORIES, INC. FORT COLLINS, CO. US EPA/OPTS PUBLIC FILES MICROFICHE #OTS0508148

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 4-CHLOROBENZOTRIFLUORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROBUTANE, 1- 000109-69-3

005808 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF N-BUTYL CHLORIDE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) CAS NO 109-69-3 NTP-TR-312, 198 P

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR MONOCHLOROBUTANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

005806 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF N-BUTYL CHLORIDE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). CAS NO 109-69-3. NTP-TR-312, 198 P

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR MONOCHLOROBUTANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROBUTANE, 2- 000078-86-4

005809 US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR MONOCHLOROBUTANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF .SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROCYCLOPENTADIENE 041851-50-7

005297 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED CYCLOPENTADIENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROFORM **000067-66-3**

005372 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED CYCLOPENTIDIENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

CHLOROMETHANE (METHYL CHLORIDE) **000074-87-3**

010005 US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

CHLORONITROBENZENE, M- **000121-73-3**

005879 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORONITROBENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

CHLOROPHENOL, 2- **000095-57-8**

010436 EXON JH. LD KOELLER. 1982. EFFECTS OF TRANSPLACENTAL EXPOSURE TO CHLORINATED PHENOLS ENVIRON HEALTH PERSPECT. 46: 137-140

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR 2-CHLOROPHENOL AND 2,4-DICHLOROPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC

US EPA I987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2-CHLOROPHENOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1988 RfD/RfC WORK GROUP.

CHLOROPHENOL, 3- **000108-43-0**

005309 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

CHLOROPHENOL, 4- **000106-48-9**

005310 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROPROPANE, 2- **000075-29-6**

010444 GAGE JC. 1970 THE SUBACUTE INHALATION TOXICITY OF 109 INDUSTRIAL CHEMICALS. BR J IND MED 27(1): 1-18.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2-CHLOROPROPANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROTHALONIL **001897-45-6**

005883 DIAMOND SHAMROCK CHEMICAL COMPANY. 1970. CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY ACCESSION NO 111253. MRID NO 00057702, 00114034. AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1986. RfD/RfC WORK GROUP.

CHLOROTOLUENE, M- **000108-41-8**

005880 US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROTOLUENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROTOLUENE, O- **000095-49-8**

010167 GIBSON, WR, FO GOSSETT, GR KOENIG, F MARROQUIN 1974 THE TOXICITY OF DAILY ORAL DOSES OF O-CHLOROTOLUENE IN THE RAT. TOXICOLOGY DIVISION, LILLY RESEARCH LABORATORIES SUBMITTED TO TEST RULES DEVELOPMENT BRANCH, OFFICE OF TOXIC SUBSTANCES, US EPA, WASHINGTON, DC

US EPA. 1989. RfD/RfC WORK GROUP.

CHLOROTOLUENE, P- **000106-43-4**

010200 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHOROTOLUENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLORPYRIFOS **002921-88-2**

005881 DOW CHEMICAL COMPANY 1972. CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY. ACCESSION NO 112118

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORPYRIFOS AND CHLOROPYRIFOS-METHYL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986. RfD/RfC WORK GROUP

CHLORPYRIFOS METHYL 005598-13-0

005882 US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORPYRIFOS AND CHLORPYRIFOS-METHYL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLORTHIOPHOS 060238-56-4

005884 WORTHING CR AND SB WALKER, ED. 1983. THE PESTICIDE MANUAL, 7TH ED BRITISH CROP PROTECTION COUNCIL, THE LAVENHAM PRESS LTD SUFFOLK, ENGLAND. P 130.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORTHIOPHOS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHROMIUM(III) 016065-83-1

005731 IVANKOVIC S AND R PREUSSMAN 1975. ABSENCE OF TOXIC AND CARCINOGENIC EFFECTS AFTER ADMINISTRATIONS OF HIGH DOSES OF CHROMIC OXIDE PIGMENT IN SUBACUTE AND LONG-TERM FEEDING EXPERIMENTS IN RATS FOOD COSMET TOXICOL. 13 347-351

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR TRIVALENT CHROMIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP.

CHROMIUM(VI) 018540-29-9

005522 MACKENZIE RD, RU BYERRUM, CF DECKER ET AL. 1958. CHRONIC TOXICITY STUDIES. II. HEXAVALENT AND TRIVALENT CHROMIUM ADMINISTERED IN DRINKING WATER TO RATS AM MED ASSOC ARCH IND HEALTH 18: 232-234.

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR HEXAVALENT CHROMIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1986 RfD/RfC WORK GROUP.

CHRYSENE 000218-01-9

005885 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHRYSENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

COPPER 007440-50-8

005374 US EPA. 1987. DRINKING WATER CRITERIA DOCUMENT FOR COPPER. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

COPPER CYANIDE **000544-92-3**

010262 US EPA 1986 90 DAY ORAL TOXICITY STUDY OF COPPER CYANIDE. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP.

CRESOL, M- / (3-METHYLPHENOL) **000108-39-4**

005380 US EPA 1986 O,M,P-CRESOL 90-DAY ORAL SUBCHRONIC TOXICITY STUDIES IN RATS. OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1987. O,M,P-CRESOL. 90-DAY ORAL SUBCHRONIC NEUROTOXICITY STUDY IN RATS OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP

010888 US EPA 1991 RfD/RfC WORK GROUP

CRESOL, O- / (2-METHYLPHENOL) **000095-48-7**

005384 US EPA 1986. O,M,P-CRESOL. 90-DAY ORAL SUBCHRONIC TOXICITY STUDIES IN RATS. OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA 1987. O,M,P-CRESOL 90-DAY ORAL SUBCHRONIC NEUROTOXICITY STUDY IN RATS. OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1987. RfD/RfC WORK GROUP.

010889 US EPA. 1991. RfD/RfC WORK GROUP.

CRESOL, P- / (4-METHYLPHENOL) **000106-44-5**

010516 CMA (CHEMICAL MANUFACTURERS' ASSOCIATION). 1988 DEVELOPMENTAL TOXICITY EVALUATION OF O-, M- OR P-CRESOL ADMINISTERED BY GAVAGE TO NEW ZEALAND WHITE RABBITS. FINAL PROJECT REPORT 51-508. FICHE NO. OTS0517695

DEITZ D, AND LT MULLIGAN 1988. SUBCHRONIC TOXICITY OF P-CRESOL IN SPRAGUE-DAWLEY RATS. MBA CHEMICAL NO 25 PREPARED BY RESEARCH TRIANGLE INSTITUTE, RESEARCH TRIANGLE PARK, NC. PREPARED FOR EPA, WASHINGTON, DC.

US EPA. 1993. RfD/RfC WORK GROUP.

010890 US EPA. 1991 RfD/RfC WORK GROUP

CUMENE 000098-82-8

005392 WOLF MA, VK ROWE, DD MCCOLLISTER, RL HOLLINGSWORTH AND F OYEN. 1956 TOXICOLOGICAL STUDIES OF CERTAIN ALKYLATED BENZENE AND BENZENES AMA ARCH IND HEALTH 14 387-398.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CUMENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP

005908 MONSANTO COMPANY. 1986 ONE MONTH STUDY OF CUMENE VAPOR ADMINISTERED TO MALE AND FEMALE SPRAGUE-DAWLEY RATS BY INHALATION US EPA/OTS PUBLIC FILES, 8D SUBMISSION MICROFICHE# OTS 0513229

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CUMENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CYANAZINE 021725-46-2

010411 EI DU PONT DE NEMOURS AND COMPANY, INC 1986. CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY. MRID NO 40081901 AND 40229001 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CYANAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1992. RfD/RfC WORK GROUP

US EPA 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR CYANAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

CYANIDE 000057-12-5

005396 HOWARD JW AND RF HANZAL 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE J AGRIC FOOD CHEM. 3 325-329.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR CYANIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1991. DRINKING WATER CRITERIA DOCUMENT FOR CYANIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1985 RfD/RfC WORK GROUP.

CYANOGEN **000460-19-5**

010263 HOWARD JW AND RF HANZAL 1955. CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE AGRIC FOOD CHEM 3 325-329.

US EPA. 1985. RfD/RfC WORK GROUP

CYANOGEN BROMIDE **000506-68-3**

010264 HOWARD JW AND RF HANZAL. 1955. CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE. AGRIC FOOD CHEM 3 325-329

US EPA. 1987 RfD/RfC WORK GROUP.

CYCLOATE **001134-23-2**

005886 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CYCLOATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CYCLOHEXANOL **000108-93-0**

005887 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CYCLOHEXANOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CYCLOHEXYLAMINE **000108-91-8**

005400 GAUNT IF, J HARDY, P GRASSO, SD GANGOLLI AND KR BUTTERWORTH. 1976. LONG-TERM TOXICITY OF CYCLOHEXYLAMINE HYDROCHLORIDE IN THE RAT FOOD COSMET TOXICOL 14(4): 255-268.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOHEXYLAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987. RfD/RfC WORK GROUP.

005398 GAUNT IF, M SHARRATT, PG GRASSO, AB LANSDOWN AND SD GANGOLLI 1974. SHORT-TERM TOXICITY OF CYCLOHEXYLAMINE HCL IN THE RAT FOOD COSMET TOXICOL 12· 609-624.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOHEXYLAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CYCLOPENTADIENE 000542-92-7

010494 DOW. 1987 UNPUBLISHED DATA DOW CHEMICAL USA, MIDLAND, MI.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOPENTADIENE AND DICYCLOPENTADIENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DACTHAL 001861-32-1

005888 ISK BIOTECH CORPORATION 1993 MRID NO 42731001, 42998401. HED DOC NO 010513. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1994 RfD/RfC WORK GROUP

DALAPON 000075-99-0

005889 *PAYNTER OE, TW TUSING, DD MCCOLLISTER AND VK ROWE. 1960* TOXICOLOGY OF DALAPON SODIUM (2,2-DICHLOROPROPIONIC ACID, SODIUM SALT). J AGRIC FOOD CHEM. 8 47-51.

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DALAPON PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988. RfD/RfC WORK GROUP

DDT 000050-29-3

005408 LAUG, EP, AA NELSON, OG FITZHUGH AND FM KUNZE. 1950. LIVER CELL ALTERATION AND DDT STORAGE IN THE FAT OF THE RAT INDUCED BY DIETARY LEVELS OF 1-50 PPM DDT. J PHARMACOL EXP THERAP 98: 268-273

US EPA 1985 RfD/RfC WORK GROUP

DECABROMODIPHENYL ETHER 001163-19-5

005891 KOCIBA RJ, LO FRAUSON, CG HUMISTON, ET AL 1975. RESULTS OF A TWO-YEAR DIETARY FEEDING STUDY WITH DECABROMODIPHENYL OXIDE (DCDPO) IN RATS. COMBUST TOXICOL 2(4). 267-285

NORRIS JM, JW EHRMANTRAUT, CL GIBBONS, ET AL. 1975 TOXICOLOGY OF OCTABROMOBIPHENYL AND DECABROMODIPHENYL OXIDE ENVIRON HEALTH PERSPECT 11.153-161

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIPHENYL ETHER PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1985. RfD/RfC WORK GROUP.

DI-N-OCTYL PHTHALATE 000117-84-0

010275 PIEKACZ H 1971. EFFECT OF DIOCTYL AND DIBUTYL PHTHALATES ON THE ORGANISM OF RATS AFTER ORAL ADMINISTRATION IN PROLONGED EXPERIMENT II SUBACUTE AND CHRONIC TOXICITY ROCZ PANSTW ZAKL HIG. 22(3): 295-307.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHTHALIC ACID, ALKYL, ARYL, AND ALKYL/ARYL ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

DIAZINON 000333-41-5

005892 DAVIES DB AND BJ HOLUB 1979 COMPARATIVE SUSCEPTIBILITY OF MALE AND FEMALE RATS TO DIETARY DIAZINON TOXICITY. J NUTR 109(6) XXVIII

DAVIES DB AND BJ HOLUB 1980. COMPARATIVE SUBACUTE TOXICITY OF DIETARY DIAZINON IN THE MALE AND FEMALE RAT TOXICOL APPL PHARMACOL 54(3): 359-367

DAVIES DB AND BJ HOLUB 1980 TOXICOLOGICAL EVALUATION OF DIETARY DIAZINON IN THE RAT ARCH ENVIRON CONTAM TOXICOL 9(6)· 637-650.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIAZINON. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

DIBENZOFURAN 000132-64-9

005409 US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR DIBENZOFURAN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

DIBROMOBENZENE, 1,4- 000106-37-6

005893 CARLSON GP AND RG TARDIFF 1977 EFFECT OF 1,4-DIBROMOBENZENE AND 1,2,4-TRIBROMOBENZENE ON XENOBIOTIC METABOLISM TOXICOL APPL PHARMACOL 42(1). 189-196

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOBENZENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1986. RfD/RfC WORK GROUP

DIBROMOCHLOROMETHANE 000124-48-1

005894 NTP (NATIONAL TOXICOLOGY PROGRAM) 1985. TOXICOLOGY AND CARCINOGENESIS STUDIES OF CHLORODIBROMOMETHANE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP TR282 NTIS PB86-166675

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOCHLOROMETHANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR DIBROMOCHLOROMETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987. RfD/RfC WORK GROUP

DIBROMOETHANE, 1,2- 000106-93-4

010854 RATCLIFFE JM, SM SCHRADER, K STEENLAND, DE CLAPP, T TURNER AND RW HORNUNG 1987. SEMEN QUALITY IN PAPAYA WORKERS WITH LONG-TERM EXPOSURE TO ETHYLENE BROMIDE BR J IND MED 44: 317-326.

SCHRADER SM, TW TURNER AND JM RATCLIFFE. 1988 THE EFFECTS OF ETHYLENE BROMIDE ON SEMEN QUALITY A COMPARISON OF SHORT-TERM AND CHRONIC EXPOSURE REPROD TOXICOLOGY 2: 191-198

US EPA 1992 RFD/RFC WORK GROUP

DIBUTYL PHTHALATE **000084-74-2**

005622 SMITH CC 1953. TOXICITY OF BUTYL STEARATE, DIBUTYL SEBACATE, DIBUTYL PHTHALATE AND METHOXYETHYL OLEATE ARCH HYG OCCUP MED. 7: 310-318.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR SELECTED PHTHALIC ACID ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS (PAE)S. PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH, FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC.

US EPA. 1990. RfD/RfC WORK GROUP.

010892 US EPA. 1990. RfD/RfC WORK GROUP

DICAMBA **001918-00-9**

010945 GOLDENTHAL, EI, DC JESSUP AND DE RODWELL 1978 TERATOLOGY STUDY IN RABBITS: IRDC NO. 163-436 (UNPUBLISHED STUDY RECEIVED MARCH 6, 1979 UNDER 876-36 PREPARED BY INTERNATIONAL RESEARCH AND DEVELOPMENT CORP., SUBMITTED BY VELSICOL CHEMICAL CORP., CHICAGO, IL. CDL:237995-E) CITED AS VELSICOL CHEMICAL CORPORATION (1978) IN U S EPA (1993). MRID 00028236 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR DICAMBA. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP.

DICHLOROBENZENE, 1,2- **000095-50-1**

010864 US EPA 1989 RfD/RfC WORK GROUP

DICHLOROBENZENE, 1,3- **000541-73-1**

005414 US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR DICHLOROBENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1992. RfD/RfC WORK GROUP

DICHLOROBENZENE, 1,4- 000106-46-7

010840 CHLOROBENZENE PRODUCERS ASSN 1986 PARADICHLOROBENZENE. TWO-GENERATION REPRODUCTION STUDY IN SPRAGUE-DAWLEY RATS STUDY NO86-81-90605 MRID NO 411088-1 AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460.

NTP (NATIONAL TOXICOLOGY PROGRAM). 1987. TOXICOLOGY AND CARCINOGENESIS STUDIES OF 1,4-DICHLOROBENZENE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP TR 319. NIH PUBL NO 87-2575.

US EPA. 1992 RfD/RfC WORK GROUP.

DICHLOROBUTENES

005415 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR DICHLOROBUTENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLORODIFLUOROMETHANE 000075-71-8

005498 SHERMAN H. 1974. LONG-TERM FEEDING STUDIES IN RATS AND DOGS WITH DICHLORODIFLUOROMETHANE (FREON 12 FOOD FREEZANT) HASKELL LABORATORY REPORT NO 24-74, UNPUBLISHED, COURTESY DU PONT DE NEMOURS CO

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1985 RfD/RfC WORK GROUP.

005496 CLAYTON WJ, JR. 1967 FLUOROCARBON TOXICITY AND BIOLOGICAL ACTION. FLUORINE CHEM REV 1(2). 197-252.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

DICHLOROETHANE, 1,1- 000075-34-3

005790 HOFMANN HT, H BIRNSTIEL AND P JOBST. 1971 ON THE INHALATION TOXICITY OF 1,1- AND 1,2-DICHLOROETHANE ARCH TOXIKOL 27 248-265.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR 1,1-DICHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

DICHLOROETHYLENE, 1,1- **000075-35-4**

005419 QUAST JF, CG HUMISTON, CE WADE, ET AL 1983. A CHRONIC TOXICITY AND ONCOGENICITY STUDY IN RATS AND SUBCHRONIC TOXICITY STUDY IN DOGS ON INGESTED VINYLIDENE CHLORIDE FUND APPL TOXICOL. 3(1). 55-62

US EPA. 1988. UPDATED HEALTH EFFECTS ASSESSMENT FOR 1,1-DICHLOROETHYLENE (VINYLIDINE CHLORIDE) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1989 RfD/RfC WORK GROUP.

DICHLOROETHYLENE, 1,2- (MIXED ISOMERS) **000540-59-0**

010509 QUAST, JF, CG HUMISTON, CE WADE, ET AL. 1983. A CHRONIC TOXICITY AND ONCOGENICITY STUDY IN RATS AND SUBCHRONIC TOXICITY STUDY IN DOGS ON INGESTED VINYLIDINE CHLORIDE FUND APPL TOXICOL. 3: 55-62

US EPA. 1991. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,2-DICHLOROETHYLENE (MIXED ISOMERS). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROETHYLENE, 1,2-C- **000156-59-2**

005420 MCCAULEY PT, M ROBINSON, LW CONDIE, ET AL. NO DATE THE EFFECTS OF SUBACUTE AND SUBCHRONIC ORAL EXPOSURE TOCIS-1,2-DICHLOROETHYLENE IN RATS HEALTH EFFECTS RESEARCH LABORATORY, US EPA, CINCINNATI, OH.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR 1,2-C-DICHLOROETHYLENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1990 RfD/RfC WORK GROUP

DICHLOROETHYLENE, 1,2-T- **000156-60-5**

005895 BARNES DW, WM SANDERS, KL SHITE JR, ET AL. 1985 TOXICOLOGY OF TRANS-1,2-DICHLOROETHYLENE IN THE MOUSE. DRUG CHEM TOXICOL 8 373-392

US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR 1,2-T-DICHLOROETHYLENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

DICHLOROPHENOL, 2,3- **000576-24-9**

005315 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROPHENOL, 2,4- **000120-83-2**

005314 EXON JH, AND LD KOLLER. 1985. TOXICITY OF 2-CHLOROPHENOL,2,4-DICHLOROPHENOL AND 2,4,6-TRICHLOROPHENOL IN WATER CHLORINATION· CHEM. ENVIRON IMPACT AND HEALTH EFF, JOLLEY ET AL., ED VOL. 5.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR 2-CHLOROPHENOL AND 2,4-DICHLOROPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986, RfD/RfC WORK GROUP.

DICHLOROPHENOL, 2,5- **000583-78-8**

005316 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROPHENOL, 2,6- **000087-65-0**

005317 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP

DICHLOROPHENOL, 3,4- **000095-77-2**

005318 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROPHENOL, 3,5- **000591-35-5**

005319 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROPHENOXY ACETIC ACID, 2,4- **000094-75-7**

010265 DOW CHEMICAL CO 1983 ACC NO 251473

US EPA 1988 RfD/RfC WORK GROUP.

DICHLOROPHENOXY) BUTYRIC ACID, 4-(2,4- / (2,4-DB) 000094-82-6

005890 RHODIA INC 1969 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO 0092165 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2,4-DB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROPROPANE, 1,1- 000078-99-9

005897 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DICHLOROPROPANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROPROPANE, 1,2- 000078-87-5

005898 NITSCHKE KD, KA JOHNSON, DL WACKERLE, JE PHILLIPS, DA DITTENBER 1988 PROPYLENE DICHLORIDE. A 13 WEEK INHALATION TOXICITY STUDY WITH RATS, MICE AND RABBITS DOW CHEMICAL CO, MAMMALIAN AND ENVIRONMENTAL TOXICOLOGY RESEARCH LABORATORY, MIDLAND, MI.

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DICHLOROPROPANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1991. RfD/RfC WORK GROUP

DICHLOROPROPANE, 1,3- 000142-28-9

005899 US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DICHLOROPROPANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROPROPANE, 2,2- 000594-20-7

005900 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DICHLOROPROPANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROPROPENE, 1,3- / (TELONE II) 000542-75-6

005901 DOW CHEMICAL CO 1973. MRID NOS 00067977, 0039684 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,3-DICHLOROPROPENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987. RfD/RfC WORK GROUP.

US EPA 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR 1,3-DICHLOROPROPENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

010351 LOMAX, LG, WT STOTT, KA JOHNSON, ET AL, 1989. THE CHRONIC TOXICITY AND ONCOGENICITY OF INHALED TECHNICAL-GRADE 1,3-DICHLOROPROPENE IN RATS AND MICE. FUND APPL TOXICOL 10· 214.

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,3-DICHLOROPROPENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1990. RfD/RfC WORK GROUP.

DICHLORPROP 000120-36-5

005896 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DICHLOROPROP PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICYCLOPENTADIENE 000077-73-6

005425 LITTON BIONETICS, INC 1980 MAMMALIAN TOXICOLOGICAL EVALUATION OF DIMP AND DCPD, (PHASE 2) LITTON BIONETICS, INC . KENSINGTON, MD CONTRACT DAMB. 17-77-C-7003. NTIS AD-A082685.

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOPENTADIENE AND DICYCLOPENTADIENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIELDRIN 000060-57-1

005429 WALKER AIT, DE STEVENSON, J ROBINSON, ET AL 1969 THE TOXICOLOGY AND PHARMACODYNAMICS OF DIELDRIN (HEOD). TWO-YEAR ORAL EXPOSURE OF RATS AND DOGS TOXICOL APPL PHARMACOL 15 345-373

US EPA. 1987. RfD/RfC WORK GROUP

DIETHYL PHTHALATE 000084-66-2

005620 BROWN D, KR BUTTERWORTH, IF GAUNT ET AL 1978 SHORT-TERMORAL TOXICITY STUDY OF DIETHYL PHTHALATE IN THE RAT FOOD COSMET TOXICOL 16. 415-422.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR SELECTED PHTHALIC ACID ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

U S. EPA. 1991 DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS (PAE)S PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH, FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

DIETHYL-P-NITROPHENYL PHOSPHATE 000311-45-5

005922 US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR DIETHYL-P-NITROPHENYL PHOSPHATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIETHYLANILINE, N,N- 000091-66-7

005903 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N,N-DIETHYLANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIETHYLENE GLYCOL MONOBUTYL ETHER 000112-34-5

005482 US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC EPA 540/1-86-052

US EPA 1992. RfD/RfC WORK GROUP

DIETHYLENE GLYCOL MONOETHYL ETHER 000111-90-0

005478 SMYTH HF, CP CARPENTER AND CB SHAFFER. 1964 A 2-YEAR STUDY OF DIETHYLENE GLYCOL MONOETHYL ETHER IN RATS FOOD COSMET TOXICOL 2 641-642

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC EPA 540/1-86-052.

005476 HALL DE, FS LEE, P AUSTIN AND FA FAIRWEATHER 1966 SHORT-TERM FEEDING STUDY WITH DIETHYLENE GLYCOL MONOETHYL ETHER IN RATS FOOD COSMET TOXICOL 4 263

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC EPA 540/1-86-052

DIETHYLFORMAMIDE **000617-84-5**

010437 ARGUS MF, JC ARCOS AND C HOCH-LIGETI 1965. THE CARCINOGENIC ACTIVITY OF PROTEIN-DENATURING AGENTS: HEPATOCARCINOGENICITY OF DIOXANE. J. NATL CANCER INST 35. 949-958.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIETHYLFORMAMIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIETHYLHYDRAZINE, 1,2- **001615-80-1**

005921 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,2-DIETHYLHYDRAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIMETHOATE **000060-51-5**

005923 AMERICAN CYANAMID COMPANY 1986 MRID NO 00164177 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHOATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP

DIMETHYLANILINE, N,N- **000121-69-7**

005924 ABDO K, M WOLFE AND R HILES. 1984 SUBCHRONIC TOXICITY OF N,N-DIMETHYLANILINE TO F-344 RATS AND B6C3F1 MICE. FED PROC. 43(3): 1698

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N,N-DIMETHYLANILINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIMETHYLFORMAMIDE, N,N- 000068-12-2

005925 BECCI, PJ, KA VOSS, WD JOHNSON, ET AL 1983 SUBCHRONIC FEEDING STUDY OF N,N-DIMETHYLFORMAMIDE IN RATS AND MICE J AM COLL TOXICOL, 2(6): 371-378.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N,N-DIMETHYLFORMAMIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

010352 CIRLA, AM, G PISATI, E INVERNIZZI ET AL 1984. EPIDEMIOLOGICAL STUDY ON WORKERS EXPOSED TO LOW DIMETHYLFORMAMIDE CONCENTRATIONS. G ITAL MED LAV 6 149-156.

CATENACCI, G, D GRAMPELLA, R TERZI, ET AL 1984 HEPATIC FUNCTION IN SUBJECTS EXPOSED TO ENVIRONMENTAL CONCENTRATIONS OF DMF LOWER THAN THE ACTUALLY PROPOSED TLV G ITAL MED LAV 6, 157-158.

US EPA 1990 RfD/RfC WORK GROUP.

DIMETHYLPHENOL, 2,3- 000526-75-0

005926 US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHYLPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIMETHYLPHENOL, 2,4- 000105-67-9

010266 US EPA. 1989 NINETY-DAY GAVAGE STUDY IN ALBINO MICE USING 2,4-DIMETHYLPHENOL STUDY 410-2831, PREPARED BY DYNAMAC CORPORATION, ROCKVILLE, MD, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHYLPHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1990 RfD/RfC WORK GROUP.

DIMETHYLPHENOL, 2,5- 000095-87-4

005928 US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHYLPHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIMETHYLPHENOL, 2,6- **000576-26-1**

005431 VELDRE IA AND HJ JANES 1979 TOXICOLOGICAL STUDIES OF SHALE OILS, SOME OF THEIR COMPONENTS AND COMMERCIAL PRODUCTS ENVIRON HEALTH PERSPECT. 30. 141-146

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR DIMETHYLPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

DIMETHYLPHENOL, 3,4- **000095-65-8**

005437 VELDRE IA AND HJ JANES 1979. TOXICOLOGICAL STUDIES OF SHALE OILS, SOME OF THEIR COMPONENTS AND COMMERCIAL PRODUCTS ENVIRON HEALTH PERSPECT. 30. 141-146

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR DIMETHYLPHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1986 RfD/RfC WORK GROUP

DIMETHYLPHTHALATE **000131-11-3**

010267 US EPA 1994. RfD/RfC WORK GROUP.

010894 US EPA 1990. RfD/RfC WORK GROUP

DIMETHYLTEREPHTHALATE **000120-61-6**

005930 NCI (NATIONAL CANCER INSTITUTE) 1979. BIOASSAY OF DIMETHYL TEREPHTHALATE FOR POSSIBLE CARCINOGENICITY DHEW/PUB/NIH 79-1376, NCI-CG-TR121

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHYL AND METHYL TEREPHTHALATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIMETHYLUREA, N,N- **000598-94-7**

005931 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N,N-DIMETHYLUREA PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINITRO-O-CRESOL, 4,6- **000534-52-1**

010470 US EPA. 1993 RfD/RfC WORK GROUP

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROCRESOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINITRO-P-CRESOL, 2,6- **000609-93-8**

005934 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2,6-DINITRO-P-CRESOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DINITROBENZENE, 1,2- **000528-29-0**

010201 CODY TE, S WITHERUP, L HASTINGS, K STEMMER AND RT CHRISTIAN 1981 1,3-DINITROBENZENE. TOXIC EFFECT IN VIVO AND IN VITRO J TOXICOL ENVIRON HEALTH 7(5): 829-847.

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROBENZENES (O-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINITROBENZENE, 1,3- **000099-65-0**

010471 CODY TE, S WITHERUP, L HASTINGS, K STEMMER AND RT CHRISTIAN. 1981 1,3-DINITROBENZENE. TOXIC EFFECT IN VIVO AND IN VITRO J TOXICOL ENVIRON HEALTH 7(5). 829-847.

US EPA. RfD/RfC WORK GROUP

DINITROBENZENE, 1,4- **000100-25-4**

010202 CODY TE, S WITHERUP, L HASTINGS, K STEMMER AND RT CHRISTIAN 1981. 1,3-DINITROBENZENE· TOXIC EFFECT IN VIVO AND IN VITRO J TOXICOL ENVIRON HEALTH 7(5): 829-847.

US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROBENZENES (O-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DINITROPHENOL, 2,3- **000066-56-8**

005936 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROPHENOLS (SELECTED). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINITROPHENOL, 2,4- **000051-28-5**

010438 HORNER WD. 1942 DINITROPHENOL AND ITS RELATION TO FORMATION OF CATARACTS. ARCH OPHTHALMOL 27 1097-1121.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROPHENOLS (SELECTED). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

US EPA 1991 RfD/RfC WORK GROUP

010895 US EPA. 1991 RfD/RfC WORK GROUP

DINITROPHENOL, 2,5- **000329-71-5**

005937 US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROPHENOLS (SELECTED). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON, DC.

DINITROPHENOL, 2,6- **000573-56-8**

005938 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROPHENOLS (SELECTED) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON, DC

DINITROPHENOL, 3,5- **000586-11-8**

005939 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROPHENOLS (SELECTED) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON, DC

DINITROTOLUENE, 2,3- **000602-01-7**

005940 US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROTOLUENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINITROTOLUENE, 2,4 **000121-14-2**

005941 ELLIS HV, CB HONG, CC LEE, ET AL 1985 SUBCHRONIC AND CHRONIC TOXICITY STUDIES OF 2,4-DINITROTOLUENE PART I BEAGLE DOGS J AM COLLEGE TOXICOL. 4(4) 233-242

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROTOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1991 RfD/RfC WORK GROUP

DINITROTOLUENE, 2,4- **000121-14-2**

010896 US EPA. 1990 RfC WORK GROUP.

DINITROTOLUENE, 2,5- **000619-15-8**

005942 US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROTOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DINITROTOLUENE, 2,6- **000606-20-2**

005943 LEE C-C ET AL 1976 MAMMALIAN TOXICITY OF MUNITIONS COMPOUNDS PHASE II· EFFECTS OF MULTIPLE DOSES PART III 2,6-DITINROTOLUENE US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND, FORT DETRICK, MD

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROTOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1991 RfD/RfC WORK GROUP

DINITROTOLUENE, 3,4- **000610-39-9**

005944 US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINITROTOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DINOSEB **000088-85-7**

005945 DOW CHEMICAL COMPANY. 1981. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 00152675. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DINOSEB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 RfD/RfC WORK GROUP.

DIPHENYLAMINE, N,N- **000122-39-4**

005946 THOMAS JO, WE RIBELIN, JR WOODWARD AND F DEEDS 1967 THE CHRONIC TOXICITY OF DIPHENYLAMINE FOR DOGS TOXICOL APPL PHARMACOL. 11. 184-194

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N,N-DIPHENYLAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1986. RfD/RfC WORK GROUP

DIRECT LIGHTFAST BLUE 004399-55-7

005947 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIRECT LIGHTFAST BLUE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DISULFOTON 000298-04-4

010412 MOBAY CHEMICAL COMPANY. 1985 MRID NO. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR DISULFOTON PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

US EPA. 1986. RfD/RfC WORK GROUP.

ENDOSULFAN 000115-29-7

010926 HOECHST CELANESE CORP 1989. ENDOSULFAN 2-YEAR FEEDING/ONCOGENICITY STUDY IN RATS MRID NO 40256502, 42099502 HED DOC NO 007937 AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1993. RfD/RfC WORK GROUP.

010938 HOECHST CELANESE CORP 1989 ENDOSULFAN· 1-YEAR FEEDING STUDY IN DOGS. MRID. NO 41099501 HED NO 007937. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1993 RfD/RfC WORK GROUP

ENDOTHALL 000145-73-3

005948 PENNWALT AGCHEM ND MRID NO 00101735 AVAILABLE FROM US EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ENDOTHALL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ENDRIN 000072-20-8

005445 VELSICOL CHEMICAL CORPORATION 1969. MRID NO 00030198 AVAILABLE FROM EPA WRITE FOI, EPA, WASHINGTON, DC 20460.

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR ENDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR ENDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP

EPICHLOROHYDRIN 000106-89-8

010440 LASKIN S, AR SELLAKUMAR, M KUSCHNER, ET AL 1980. INHALATION CARCINOGENICITY OF EPICHLOROHYDRIN IN NON-INBRED SPRAGUE-DAWLEY RATS. J NATL CANCER INST. 65(4): 751-757.

US EPA 1984. HEALTH ASSESSMENT DOCUMENT FOR EPICHLOROHYDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC EPA 600/8-83-032F NTIS PB85-132363

US EPA 1991 RfD/RfC WORK GROUP.

010492 QUAST JF, JW HENCK, BJ POSTMA, DJ SCHUETZ AND MJ MCKENNA 1979 EPICHLOROHYDRIN - SUBCHRONIC STUDIES I A 90-DAY INHALATION STUDY IN LABORATORY RODENTS (FISCHER 344 RATS, SPRAGUE-DAWLEY RATS AND B6C3F1 MICE). DOW CHEMICAL USA, MIDLAND, MI

US EPA 1991 RfD/RfC WORK GROUP

EPTC 000759-94-4

005959 PPG INDUSTRIES, INC. 1986 CONFIDENTIAL BUSINESS INFORMATION: UNPUBLISHED STUDY ACCESSION NO 263695, 262696. MRID NO. 00161597 AVAILABLE FROM EPA WRITE FOI, EPA, WASHINGTON, DC 20460.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR EPTC PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHOPROP 013194-48-4

005951 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ETHOPROP PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ETHOXYETHANOL ACETATE, 2- 000111-15-9

010507 UNION CARBIDE 1984 A TERATOGENIC EVALUATION OF CELLOSOLVE ACETATE IN FISHER 344 RATS AND NEW ZEALAND WHITE RABBITS FOLLOWING INHALATION EXPOSURE BUSHY RUN RESEARCH CENTER, EXPORT, PA, OCTOBER 1984 FYI-AX-1184-0360

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXYETHANOL ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ETHOXYETHANOL ACRYLATE, 2- 000106-74-1

005953 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXYETHANOL ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHOXYETHANOL DODECANOATE, 2- 000106-13-8

005956 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXYETHANOL ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHOXYETHANOL PHOSPHATE, 2- 068554-00-7

005955 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXYETHANOL ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHOXYETHANOL, 2- 000110-80-5

005470 MELNICK RL 1984 TOXICITIES OF ETHYLENE GLYCOL AND ETHYLENE GLYCOL MONOETHYL ETHER IN FISCHER 344/N RATS AND B6C3F1 MICE ENVIRON HEALTH PERSPECT 57 147-155

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXY-ETHANOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

005468 STENGER EG, A LISLOTT, D MUELLER ET AL 1971 TOXICOLOGY OF ETHYLENE GLYCOL MONOETHYL ETHER ARZNEIM-FORSCH. 21(6): 880-885

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC EPA 540/1-86-052

010441 BARBEE SJ, JB TERRILL, DJ DESOUSA AND CC CONAWAY 1984 SUBCHRONIC INHALATION TOXICOLOGY OF ETHYLENE GLYCOL MONOETHYL ETHER IN THE RAT AND RABBIT. ENVIRON HEALTH PERSPECT 57 157-163

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC EPA 540/1-86-052

US EPA 1990 RfD/RfC WORK GROUP

ETHOXYETHYL METHACRYLATE, 2- 002370-63-0

005954 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-ETHOXYETHANOL ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHYL ACETATE 000141-78-6

005957 US EPA 1986. RAT ORAL SUBCHRONIC STUDY WITH ETHYL ACETATE. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ETHYL ACETATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1986 RfD/RfC WORK GROUP.

ETHYL BENZENE 000100-41-4

010867 WOLF MA. VK ROWE. DD MCCOLLISTER. RL HOLLINGSWORTH AND F OYEN. 1956. TOXICOLOGICAL STUDIES OF CERTAIN ALKYLATED BENZENE AND BENZENES. AMA ARCH IND HEALTH 14 387-398 CITED IN US EPA. 1985

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR ETHYLBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ETHYLBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1985 RfD/RfC WORK GROUP

010866 ANDREW FD. RL BUSHCOHBOM. WC CANNON. ET AL 1981 TERATOLOGIC ASSESSMENT OF ETHYLBENZENE AND 2-ETHOXYETHANOL BATTELLE PACIFIC NORTHWEST LABORATORY. RICHLAND. WA NTIS PB83-208074 P 108.

HARDIN BD. GP BOND. MR SIKOV. ET AL 1981 TESTING OF SELECTED WORKPLACE CHEMICALS FOR TERATOGENIC POTENTIAL SCANDJ WORK ENVIRON HEALTH. 7 66-75

US EPA. 1990. RfD/RfC WORK GROUP

ETHYL CHLORIDE 000075-00-3

010371 SCORTICHINI BH. KA JOHNSON. JJ MOMANY-PFRUENDER ET AL 1986 ETHYL CHLORIDE. INHALATION TERATOLOGY STUDY IN CF-1 MICE DOW CHEMICAL CO EPA 86-870002248

US EPA 1990 RfD/RfC WORK GROUP

ETHYL ETHER 000060-29-7

010396 AMERICAN BIOGENICS CORP 1986 90-DAY GAVAGE STUDY IN RATS USING ETHYL ETHER STATUS REPORT FOR ABC STUDY NO 410-23433/18/86.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR ETHYL ETHER ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1989 RfD/RfC WORK GROUP

ETHYL METHACRYLATE 000097-63-2

005961 BORZELLECA JF, PS LARSON, GR HENNIGAR, ET AL. 1964 STUDIES ON THE CHRONIC ORAL TOXICITY OF MONOMERIC ETHYL ACRYLATE AND METHYL METHACRYLATE TOXICOL APPL PHARMACOL. 6: 29-36

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ETHYL METHACRYLATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ETHYL-O-XYLENE, 4- 000934-80-5

010472 US EPA. 1984. HEALTH AND ENVIRONMENTAL PROFILE FOR METHYLETHYL BENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

ETHYLANILINE, N- 000103-69-5

005958 US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR N-ETHYLANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHYLENE CYANOHYDRIN 000109-78-4

005780 SAUERHOFF MW, WH BRAUN, JC RAMSEY ET AL. 1976 TOXICOLOGICAL EVALUATION AND PHARMACOKINETIC PROFILE OF B-HYDROXYPROPIONITRILE IN RATS J TOXICOL ENVIRON HEALTH 2(1) 31-44

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYANOHYDRINS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHYLENE DIAMINE 000107-15-3

005796 YANG RS, RH GARMAN, RR MARONPOT, ET AL 1983. ACUTE AND SUBCHRONIC TOXICITY OF ETHYLENEDIAMINE IN LABORATORY ANIMALS APPL TOXICOL 3(6) 512-520.

US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ETHYLENEDIAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010898 US EPA 1990 RfD/RfC WORK GROUP

ETHYLENE GLYCOL 000107-21-1

005454 DEPASS LR, RH GARMAN, MD WOODSIDE ET AL 1986. CHRONIC TOXICITY AND ONCOGENICITY STUDIES OF ETHYLENE GLYCOL IN RATS AND MICE FUND APPL TOXICOL. 7. 547-565.

US EPA 1987 RfD/RfC WORK GROUP.

005452 MARONPOT RR, JP ZELENAK, EV WEAVER AND NJ SMITH 1983. TERATOGENICITY STUDY OF ETHYLENE GLYCOL IN RATS DRUG CHEM TOXICOL 6(6) 579-594.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR ETHYLENE GLYCOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

ETHYLENE GLYCOL MONOBUTYL ETHER 000111-76-2

010353 DODD DE, WM SNELLINGS, RR MAROMPOT, ET AL 1983 ETHYLENE GLYCOL MONOBUTYL ETHER ACUTE, 9-DAY AND 90-DAY VAPOR INHALATION STUDIES IN FISCHER 344 RATS. TOXICOL APPL PHARMACOL. 68 405-414.

US EPA. 1991 RfD/RfC WORK GROUP

ETHYLENE THIOUREA 000096-45-7

010397 GRAHAM SL, KJ DAVIS, WH HANSEN AND CH GRAHAM. 1975. EFFECTS OF PROLONGED ETHYLENE THIOUREA INGESTION ON THE THYROID OF THE RAT FOOD COSMET TOXICOL 13: 493-499

US EPA 1991 RfD/RfC WORK GROUP

010899 US EPA 1992 RfD/RfC WORK GROUP

ETHYLTOLUENE, M- 000620-14-4

005963 US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ETHYL BENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ETHYLTOLUENE, O- 000611-14-3

005962 US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ETHYL BENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHYLTOLUENE, P- 000622-96-8

005964 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ETHYL BENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

FLUORANTHENE 000206-44-0

010168 US EPA. 1988 13-WEEK MOUSE ORAL SUBCHRONIC TOXICITY STUDY PREPARED BY TOXICITY RESEARCH LABORATORIES, LTD, MUSKEGON, MI FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1989. RfD/RfC WORK GROUP.

010967 US EPA. 1994. RfD/RfC WORK GROUP.

FLUORENE 000086-73-7

010169 US EPA 1989. MOUSE ORAL SUBCHRONIC STUDY PREPARED BY TOXICITY RESEARCH LABORATORIES, LTD, MUSKEGON, MI, FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR FLUORENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1989 RfD/RfC WORK GROUP

FLUORINE / (SOLUBLE FLUORIDE) 007782-41-4

005965 HODGE HC 1950 THE CONCENTRATION OF FLUORIDES IN DRINKING WATER TO GIVE THE POINT OF MINIMUM CARIES WITH MAXIMUM SAFETY J AM DENT ASSOC 40· 436

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR FLUORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1986 RfD/RfC WORK GROUP

FLURIDONE 059756-60-4

005966 ELANCO PRODUCTS COMPANY, DIVISION OF ELI LILLY AND COMPANY 1980 CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY ACCESSION NOS 070933, 070939 MRID NO 00103251, 00103305 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR FLURIDONE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1988. RfD/RfC WORK GROUP

FOLPET 000133-07-3

005967 CHEVRON CHEMICAL CORPORATION 1986 CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY ACCESSION NO 263772 MRID NO 00161315. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR FOLPET. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

uS EPA. 1987 RFD/RFC WORK GROUP.

FORMALDEHYDE 000050-00-0

010398 TIL HP, RA WOUTERSEN, VJ FERON ET AL 1989. TWO-YEAR DRINKING WATER STUDY OF FORMALDEHYDE IN RATS FOOD CHEM TOXICOL 27 77-87

US EPA. 1989. DRAFT DRINKING WATER HEALTH ADVISORY FOR FORMALDEHYDE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA. 1990 RfD/RfC WORK GROUP.

FORMALDEHYDE CYANOHYDRIN 000107-16-4

005782 US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYANOHYDRINS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

FORMIC ACID 000064-18-6

010268 MALORNY G. 1969 ACUTE AND CHRONIC TOXICITY OF FORMIC ACID AND FORMATE. Z ERNACHRUNGSWISS. 9. 332-339

US EPA. 1990 RfD/RfC WORK GROUP

FURAN 000110-00-9

005462 SRI (SOUTHERN RESEARCH INSTITUTE) 1982 SUBCHRONIC TOXICITY REPORT ON FURAN (C56202) IN B6C3F1 MICE PREPARED FOR NATIONAL TOXICOLOGY PROGRAM UNDER CONTRACT NO 1-CP-95641-01, BETHESDA, MD.

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR FURAN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

FURFURAL 000098-01-1

005466 SRI (SOUTHERN RESEARCH INSTITUTE) 1981 90 DAY RAT REPORT. UNPUBLISHED STUDY PERFORMED FOR NTP.

US EPA. 1987. RfD/RfC WORK GROUP.

GLYCIDALDEHYDE 000765-34-4

005968 HINE CH, RJ GUZMAN, MK DUNLAP, R LIMA AND GS LOQUVAM. 1961. STUDIES ON THE TOXICITY OF GLYCIDALDEHYDE ARCH ENVIRON HEALTH 2: 23-30

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR GLYCIDALDEHYDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

HEPTACHLOR 000076-44-8

005506 VELSICOL CHEMICAL CORP 1955 MRID NO 00062599. AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1987. RfD/RfC WORK GROUP

HEPTACHLOR EPOXIDE 001024-57-3

010399 DOW CHEMICAL CO 1958 MRID NO 00061912 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1986 RfD/RfC WORK GROUP

HEPTANE, N- 000142-82-5

005969 US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR N HEPTANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

HEXABROMOBENZENE 000087-82-1

005970 MENDOZA CE, HM VIJAY, JB SHIELDS AND GW LAVER 1977 EFFECTS OF HEXABROMOBENZENE ON THE MALE RAT TOXICOL APPL PHARMACOL, 41: 127-130

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOBENZENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1985 RfD/RfC WORK GROUP

HEXACHLOROBENZENE 000118-74-1

010868 ARNOLD, DL, CA MOODIE, SM CHARBONNEAU ET AL, 1985 LONG-TERM TOXICITY OF HEXACHLOROBENZENE IN THE RAT AND THE EFFECT OF DIETARY VITAMIN A FOOD CHEM TOXICOL 23(9) 779-793.

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR HEXACHLOROBENZENE PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

US EPA, 1988 RfD/RfC WORK GROUP

010900 US EPA 1990, RfD/RfC WORK GROUP

HEXACHLOROBUTADIENE 000087-68-3

010927 NTP (NATIONAL TOXICOLOGY PROGRAM) 1991, NTP REPORT ON THE TOXICITY STUDIES OF HEXACHLORO-1,3-BUTADIENE IN B6C3F1 MICE (FEED STUDIES)

YANG ET AL, 1989 HEXACHLOROBUTADIENE - SUBCHRONIC TOXICOLOGY STUDIES OF HEXACHLORO-1,3-BUTADIENE (HCBD) IN B6C3F1 MICE BY DIETARY INCORPORATION J ENVIRON PATHOL TOXICOL ONCOL, P. 323-332

KOCIBA RJ, DG KEYS, GC JERESEY, ET AL 1977 RESULTS OF A 2-YEAR CHRONIC TOXICITY STUDY WITH HEXACHLOROBUTADIENE IN RATS AM IND HYG ASSOC J. *38: 589-602*

US EPA, 1993 RfD/RfC WORK GROUP.

HEXACHLOROCYCLOHEXANE, DELTA- 000319-86-8

010495 US EPA, 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

HEXACHLOROCYCLOHEXANE, EPSILON- 006108-10-7

010496 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

HEXACHLOROCYCLOHEXANE, GAMMA- 000058-89-9

005537 ZOECON CORPORATION 1983 MRID NO 00128356 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA, 1986 RfD/RfC WORK GROUP

010903 US EPA 1992 RfD/RfC WORK GROUP.

HEXACHLOROCYCLOPENTADIENE 000077-47-4

005299 ABDO, KM, CA MONTGOMERY, WM KLUWE ET AL. 1984 TOXICITY OF HEXACHLOROCYCLOPENTADIENE: SUBCHRONIC (13-WEEK) ADMINISTRATION BY GAVAGE TO F344 RATS AND B6C3F1 MICE. J APPL TOXICOL 4: 75-81

US EPA 1991. DRINKING WATER CRITERIA DOCUMENT FOR HEXACHLOROCYCLOPENTANE. PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

US EPA. 1985 RfD/RfC WORK GROUP

010445 ABDO, KM, CA MONTGOMERY, J ROYCROFT, HA RAGAN, RA RENNE, WE GIDDINS 1986 SUBCHRONIC (13-WEEK) OINHALATION TOXCICITY OF HEXACHLOROCYCLOPENTADIENE (HCCPD) IN F344 RATS AND B6C3F1 MICE ABSTRACT SUBMITTED TO THE SOCIETY OF TOXICOLOGY FROM THE 1986 MEETING.

BATTELLE NORTHWEST LABORATORIES 1984. INHALATION CARCINOGENESIS BIOASSAY STUDY. SUBCHRONIC STUDY REPORT ON HEXACHLOROCYCLOPENTADIENE IN RATS SUBMITTED TO THE NATIONAL TOXICOLOGY PROGRAM

US EPA. 1988 HEALTH AND DNVIRONMENTAL EFFECTS DOCUMENT FOR HEXACHLOROCYCLOPENTADIENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR HEXACHLOROCYCLOPENTADIENE. PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

HEXACHLOROETHANE 000067-72-1

005518 GORZINSKI, SJ, RJ NOLAN, SB MCCOLLISTER, ET AL 1985. SUBCHRONIC ORAL TOXICITY, TISSUE DISTRIBUTION AND CLEARANCE OF HEXACHLOROETHANE IN THE RAT DRUG CHEM TOXICOL 8(3) 155-169

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HEXACHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP.

010904 US EPA. 1992 RfD/RfC WORK GROUP

HEXACHLOROPHENE **000070-30-4**

005972 NATIONWIDE CHEMICAL CORPORATION 1974 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO 00055365 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROPHENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1988 RfD/RfC WORK GROUP

HEXAMETHYLENE DIAMINE **000124-09-4**

005973 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXAMETHYLENEDIAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

HEXANE, N- **000110-54-3**

005974 KRASAVAGE WJ, JL O'DONOGHUE, GD DIVINCENZO AND TERHAAR. 1980 RELATIVE NEUROTOXICITY OF METHYL-N-BUTYL KETONE, N-HEXANE AND THEIR METABOLITES. TOXICOL APPL PHARMACOL 52(3) 433-441.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR N-HEXANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010273 SANAGI S, Y SEKI, K SUGIMOTO AND M HIRATA 1980. PERIPHERAL NERVOUS SYSTEM FUNCTIONS OF WORKERS EXPOSED TO N-HEXANE AT A LOW LEVEL INT ARCH OCCUP ENVIRON HEALTH, 47, 69-79.

HEXANONE, 2- **000591-78-6**

005976 US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR N-HEXANONE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

HYDROGEN SULFIDE 007783-06-4

010269 WATTERAU H, W OECKERT AND UG KNAPE. 1964 TESTS FOR THE APPLICATION OF DRIED GREEN FODDER WITH HIGH H2S CONTENT (EXPERIMENTS WITH POULTRY AND FATTENED PIGS). LETTIN FEEDS TESTING CENTER AND FEEDING HALL. FEEDS SCIENCE FETTERUNG 5 383-393

US EPA 1985 RfD/RfC WORK GROUP.

010354 CIIT 1983 90 DAY VAPOR INHALATION TOXICITY STUDY OF HYDROGEN SULFIDE IN B6C3F1 MICE EPA OTS PUBLIC FILES FICHE NO0000255-0 DOCUMENT NO FYI-OTS-0883-0255.

US EPA. 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HYDROGEN SULFIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1995 RfD/RfC WORK GROUP

HYDROQUINONE 000123-31-9

005526 CARLSON, AJ AND NR BREWER 1953 TOXICITY STUDIES ON HYDROQUINONE PROC SOC EXP BIOL MED. 84· 684-688

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HYDROQUINONE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

010905 US EPA 1990. RfD/RfC WORK GROUP.

IRON 007439-89-6

005527 US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR IRON ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

ISOBUTYL ALCOHOL 000078-83-1

005977 US EPA 1986. RAT ORAL SUBCHRONIC TOXICITY WITH ISOBUTYL ALCOHOL OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ISOBUTANOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

ISOPHORONE **000078-59-1**

005910 NOR-AM AGRICULTURAL PRODUCTS, INC. 1972 MRID NO 00123976 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF ISOPHORONE (CAS NO 78-59-1) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP TECH REPORT SER NO 291, NIH PUBL NO 86-2547.

US EPA. 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR ISOPHORONE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

US EPA 1989. RfD/RfC WORK GROUP.

010906 US EPA 1990 RfD/RfC WORK GROUP.

ISOPROPALIN **033820-53-0**

005978 ELI LILY CO. 1985. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ISOPROPALIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1986. RfD/RfC WORK GROUP

LACTONITRILE **000078-97-7**

005783 US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITRILES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

LEAD **007439-92-1**

010447 REFER TO IRIS

LEAD ALKYLS

010448 REFER TO IRIS.

LINURON **000330-55-2**

005990 DU PONT DE NEMOURS AND COMPANY, INC. 1962. CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY MRID NO 00018374. AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR LINURON. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

MALATHION 000121-75-5

005991 MOELLER HC AND JA RIDER. 1962 PLASMA AND RED BLOOD CELL-CHOLINESTERASE ACTIVITY AS INDICATIONS OF THE THRESHOLD OF INCIPIENT TOXICITY OF ETHYL-P-NITROPHENOL THIONEBENZENEPHOSPHORATE (EPN) AND MALATHION IN HUMAN BEINGS TOXICOL APPL PHARMACOL. 4: 123-130

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MALATHION. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1987 RfD/RfC WORK GROUP

MALEIC ANHYDRIDE 000108-31-6

005992 JESSUP DC, D ALDRIDGE, JL SCHARDEIN AND M BLAIR. 1982 THREE-GENERATION REPRODUCTION STUDY IN RATS (MODIFIED TO A2-GENERATION STUDY). MALEIC ANHYDRIDE IR-79-358. INTERNATIONAL RESEARCH AND DEVELOPMENT CORP. FOR MONSANTO CO., ST. LOUIS,MO. UNPUBLISHED 8D SUBMISSION. MICROFICHE NO OTS 0206655. DOCUMENT ID 878214777

PREACHE M 1983 CHRONIC DIETARY ADMINISTRATION OF MALEIC ANHYDRIDE VOL 1 NARRATIVE FYI-OTS SUBMISSION 1283-0277 PREPARED BY ITT RESEARCH INSTITUTE FOR CHEMICAL INDUSTRY INSTITUTE OF TECHNOLOGY, RESEARCH TRIANGLE PARK, NC.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MALEIC ANHYDRIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 RfD/RfC WORK GROUP

MALEIC HYDRAZIDE 000123-33-1

005993 UNIROYAL CHEMICAL CO 1981 ACCESSION NO 250523

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR MALEIC ANHYDRIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 RfD/RfC WORK GROUP

MALONONITRILE 000109-77-3

005994 PANOV I, M ZLATEVA AND G ANTOV 1972. TOXICOLOGICAL CHARACTERISTICS OF DICYANOMETHANE. CHRONIC EFFECTS IN WHITE RATS KHIG ZDRAVEOPAZVANE 15(6) 553-562

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MALONONITRILE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

MANCOZEB **008018-01-7**

005995 US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MANCOZEB PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

MANEB **012427-38-2**

005996 MANEB DATA TASK FORCE 1986. MRID NO 00161552 (CITED IN US EPA 1987.) AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

ROHM AND HAAS CO. 1977 MRID NO 00129980. (CITED IN US EPA 1987.) AVAILABLE FROM EPA. WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MANEB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

MANGANESE **007439-96-5**

010851 WHO (WORLD HEALTH ORGANIZATION) 1973 TRACE ELEMENTS IN HUMAN NUTRITION: MANGANESE REPORT OF A WHO EXPERT COMMITTEE TECHNICAL REPORT SERVICE, 532, WHO, GENEVA, SWITZERLAND PP 34-36

SCHROEDER HA, JJ BALASSA, IH TIPTON 1966 ESSENTIAL TRACE METALS IN MAN: MANGANESE, A STUDY IN HOMEOSTASIS. J CHRON DIS 19. 545-571

NRC (NATIONAL RESEARCH COUNCIL) 1989 RECOMMENDED DIETARY ALLOWANCES, 10TH ED FOOD AND NUTRITION BOARD, NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY PRESS, WASHINGTON, DC. PP 230-235

US EPA 1992. RfD/RfC WORK GROUP.

010959 ROELS HA, P GHYSELEN, JP BUCHET, E CEULEMANS, RR LAUWERYS 1992. ASSESSMENT OF THE PERMISSIBLE EXPOSURE LEVEL TO MANGANESE IN WORKERS EXPOSED TO MANGANESE DIOXIDE DUST. BR J IND MED 49: 25-34

ROELS H, R LAUWERYS, JP BUCHET ET AL 1987 EPIDEMIOLOGICAL SURVEY AMONG WORKERS EXPOSED TO MANGANESE EFFECTS ON LUNG, CENTRAL NERVOUS SYSTEM, AND SOME BIOLOGICAL INDICES AM J IND MED 11. 307-327

US EPA. 1993 RfD/RfC WORK GROUP

MEPHOSFOLAN **000950-10-7**

005997 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MEPHOSFOLAN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

MERCURIC CHLORIDE 007487-94-7

005800 ANDRES P 1984. IGA-AGG DISEASE IN THE INTESTINE OF BROWN-NORWAY RATS INGESTING MERCURIC CHLORIDE CLIN IMMUNOL IMMUNOPATHOL 20 488-494.

BERNAUDIN JF, E DRUET, P DRUET, R MASSE. 1981 INHALATION OR INGESTION OF ORGANIC OR INORGANIC MERCURIALS PRODUCES AUTO-IMMUNE DISEASE IN RATS CLIN IMMUNOL IMMUNOPATHOL 20. 129-135

DRUET P, E DRUET, F POTDEVIN C SAPIN. 1978. IMMUNE-TYPE GLOMERULONEPHRITIS INDUCED BY HG CL2 IN THE BROWN NORWAY RAT ANN IMMUNOL 129C: 777-702

US EPA 1987. PEER REVIEW WORKSHOP ON MERCURY ISSUES. OCTOBER 26-27, 1987. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI, OH.

US EPA 1988 RfD/RfC WORK GROUP

US EPA 1995 MERCURY STUDY REPORT TO CONGRESS OFFICE OF RESEARCH AND DEVELOPMENT WASHINGTON, DC EXTERNAL REVIEW DRAFT EPA/600/P-94/002AB

MERCURY ELEMENTAL 007439-97-6

010270 FAWER RF, V DERIBAUPIERRE, MP GUILLEMIN ET AL 1983. MEASUREMENT OF HAND TREMOR INDUCED BY INDUSTRIAL EXPOSURE TO METALLIC MERCURY J IND MED 40 204-208.

PIIKIVI L 1989 CARDIOVASCULAR REFLEXES AND LONG-TERM EXPOSURE TO MERCURY VAPOR. INT ARCH OCCUP ENVIRON HEALTH. 61. 391-395

PIIKIVI L AND H HANNINEN 1989. SUBJECTIVE SYMPTOMS AND PSYCHOLOGICAL PERFORMANCE OF CHLORINE-ALKALI WORKERS SCANDJ WORK ENVIRON HEALTH. 15 69-74

PIIKIVI L AND V TOLONEN 1989 EEG FINDINGS IN CHLOR-ALKALI WORKERS SUBJECTED TO LONG-TERM EXPOSURE TO MERCURY VAPOR BR J IND MED 46: 370-375

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR MERCURY PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1990 RfD/RfC WORK GROUP

MERPHOS 000150-50-5

005998 ABOU-DONIA MB, DG GRAHAM PR TIMMONS AND BL REICHERT 1980. LATE ACUTE, DELAYED NEUROTOXIC AND CHOLINERGIC EFFECTS OF S,S,S-TRIBUTYLPHOSPHOROTRITHIOITE (MERPHOS) IN HENS TOXICOL APPL PHARMACOL 53: 439-457.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MERPHOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA 1987 RfD/RfC WORK GROUP

010907 US EPA 1992 RfD/RfC WORK GROUP.

MERPHOS OXIDE 000078-48-8

005999 ABOU-DONIA MB, DG GRAHAM, KM ABDO AND AA KOMEIL 1979 DELAYED NEUROTOXIC, LATE ACUTE AND CHOLINERGIC EFFECTS OF S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE (DEF). SUBCHRONIC (90 DAYS) ADMINISTRATION IN HENS TOXICOLOGY 14 229-243.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MERPHOS OXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1987. RfD/RfC WORK GROUP

010908 US EPA. 1992. RfD/RfC WORK GROUP

METHACRYLONITRILE 000126-98-7

005812 POZZANI, UC, CR KINKEAD AND JM KING 1968 THE MAMMALIAN TOXICITY OF METHACRYLONITRILE AM IND HYG ASSOC J 29(3) 202-210

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITRILES, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE.

US EPA. 1987. RfD/RfC WORK GROUP.

METHANOL 000067-56-1

010271 US EPA. 1986. RAT ORAL SUBCHRONIC TOXICITY STUDY WITH METHANOL. OFFICE OF SOLID WASTE. WASHINGTON, DC

US EPA 1988. RfD/RfC WORK GROUP

METHOMYL **016752-77-5**

005802 E I DU PONT DE NEMOURS AND COMPANY, INC 1968 MRID 0007091, 00009012 AVAILABLE FROM EPA, WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHOMYL. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH

US EPA, 1986 RFD/RFC WORK GROUP.

METHOXYCHLOR **000072-43-5**

010357 KINCAID ENTERPRISES, INC. 1989 MRID NO 0015992 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1990 RfD/RfC WORK GROUP

010909 US EPA 1991 RfD/RfC WORK GROUP

METHOXYETHANOL ACETATE, 2- **000110-49-6**

010497 MILLER RR, LL CALHOUN AND BL YANO. 1982 ETHYLENE GLYCOL MONOMETHYL ETHER 13-WEEK VAPOR INHALATION STUDY IN MALE RABBITS. REPORT PREPARED FOR THE CHEMICAL MANUFACTURERS ASSOCIATION, MARCH 25, 1982

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHOXYETHANOL ACETATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHOXYETHANOL, 2- **000109-86-4**

010372 MILLER RR, JA AYRES, JL YOUNG ET AL. 1983 ETHYLENE GLYCOL MONOMETHYL ETHER I SUBCHRONIC VAPOR INHALATION STUDY WITH RATS AND RABBITS FUND APPL TOXICOL 3(1) 49-54

US EPA 1990 RfD/RfC WORK GROUP

METHYL ACETATE **000079-20-9**

010002 TOXICITY RESEARCH LABORATORY 1986 RAT ORAL SUBCHRONIC TOXICITY STUDY WITH METHANOL SPONSORED BY OFFICE OF SOLID WASTE, US EPA. WASHINGTON, DC

US EPA 1986, HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ACETATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYL ACRYLATE 000096-33-3

010498 KLIMISCH HJ AND W REININGHAUS. 1984. CARCINOGENICITY OF ACRYLATES LONG-TERM INHALATION STUDIES ON METHYL ACRYLATE (MA) AND N-BUTYL ACRYLATE (BA) IN RATS TOXICOLOGIST 4(1) 53

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ACRYLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYL ETHYL KETONE 000078-93-3

010853 COX, GE. 1975 TOXICITY STUDIES IN RATS WITH 2-BUTANOL· INCLUDING GROWTH, REPRODUCTION, AND TERATOGENIC OBSERVATIONS FOOD AND DRUG RESEARCH LABORATORIES, INC (91MR R 1673)

US EPA. 1992. RfD/RfC WORK GROUP.

010845 SCHWETZ BA, TJ MAST, RJ WEIGEL, ET AL 1991 DEVELOPMENTAL TOXICITY OF INHALED METHYL ETHYL KETONE IN MICE FUND APPL TOXICOL 16 742-748

MAST, TJ, JA DILL, JJ EVANOFF, ET AL. 1989 INHALATION DEVELOPMENTAL TOXICOLOGY STUDIES· TERATOLOGY STUDY OF METHYLETHYL KETONE IN MICE FINAL REPORT PREPARED BY PACIFIC NORTHWEST LABORATORY, BATELLE MEMORIAL INSTITUTE, FOR THE NATIONAL TOXICOLOGY PROGRAM, WASHINGTON, DC PNL-6833 UC-408

US EPA. 1991 RfD/RfC WORK GROUP

METHYL ETHYL KETONE PEROXIDE 001338-23-4

010948 US EPA 1993. RfD/RfC WORK GROUP

METHYL ISOBUTYL KETONE 000108-10-1

010949 MICROBIOLOGICAL ASSOCIATES 1986 SUBCHRONIC TOXICITY OF METHYL ISOBUTYL KETONE IN SPRAGUE-DAWLEY RATS. PERFORMED FOR RESEARCH TRIANGLE INSTITUTE, PO BOX 12194, RESEARCH TRIANGLE PARK, NC, 27709. FINAL REPORT STUDY NO 522104.

US EPA. 1993. RfD/RfC WORK GROUP

METHYL ISOCYANATE 000624-83-9

010013 US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ISOCYANATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1990. RfD/RfC WORK GROUP

METHYLMERCURY 022967-92-6

010970 MARSH, D O , T W CLARKSON, C COX ET AL 1987. FETAL METHYLMERCURY POISONING RELATIONSHIP BETWEEN CONCENTRATION IN SINGLE STRANDS OF MATERNAL HAIR AND CHILD EFFECTS. ARCH NEUROL 44 1017-1022.

SEAFOOD SAFETY 1991 COMMITTEE ON EVALUATION OF THE SAFETY OF FISHERY PRODUCTS, CHAPTER ON METHYLMERCURY FDA RISK ASSESSMENT AND CURRENT REGULATIONS, NATIONAL ACADEMY PRESS, WASHINGTON, DC. P 196-221

U S EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR MERCURY PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATION AND STANDARDS, WASHINGTON, DC. EPA/440/5-80/058 NTIS PB 81-117699

U.S EPA. 1995 MERCURY STUDY REPORT TO CONGRESS OFFICE OF RESEARCH AND DEVELOPMENT, WASHINGTON, DC EXTERNAL REVIEW DRAFT. EPA/600/P-94/002Ab

U.S. EPA 1994. RfD/RfC WORK GROUP

METHYL METHACRYLATE 000080-62-6

010014 BORZELLECA JF, PS LARSON, GR HENNIGAR, ET AL 1964 STUDIES ON THE CHRONIC ORAL TOXICITY OF MONOMERIC ETHYL ACRYLATE AND METHYL METHACRYLATE TOXICOL APPL PHARMACOL 6 29-36

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL METHACRYLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYL PARATHION 000298-00-0

010015 MONSANTO CO 1983 ACCESSION NO 252501-252503, 253346, 253372-253374 MRID NO 000139023, 00143965, 00145507 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL PARATHION PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

010846 DALY, IW AND WE RINEHART 1980 A THREE-MONTH FEEDING STUDY OF METHYL PARATHION IN RATS PROJECT 77-2054 MRID NO 74299 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA, 1991 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHYL PARATHION PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

STYRENE (MIXED ISOMERS) 025013-15-4

010500 FINAL CHRONIC REPORT PERFORMED FOR THE NTP UNDER CONTRACT NO N01-ES-3B042.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHYL STYRENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

METHYL-4-CHLOROPHENOXY) BUTYRIC ACID, 4-(2- 000094-81-5

010008 RHODIA. INC 1970 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. MRID NO 00116345 AVAILABLE FROM EPA WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MCPA AND MCPB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC

US EPA 1990 INTEGRATED RISK INFORMATION SYSTEM (IRIS). ONLINE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH

US EPA 1987 RfD/RfC WORK GROUP

METHYL-4-CHLOROPHENOXY) PROPIONIC ACID, 2-(2- 000093-65-2

010009 BASF AKTIEGERELLSCHAFT. 1985. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 00158359 AVAILABLE FROM EPA WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MCPP PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC

US EPA 1988 RfD/RfC WORK GROUP.

METHYL-4-CHLOROPHENOXYACETIC ACID, 2- 000094-74-6

010007 INDUSTRY TASK FORCE ON MCPA RESEARCH DATA 1986 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 00164352 AVAILABLE FROM EPA WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MCPA AND MCPB PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC

US EPA 1988 RfD/RfC WORK GROUP

METHYLCYCLOHEXANE 000108-87-2

010431 KINKEAD ER, CC HAUN MG SCHNEIDER, ET AL 1985. CHRONIC INHALATION EXPOSURE OF EXPERIMENTAL ANIMALS TO METHYLCYCLOHEXANE GOVT REPORTS ANNOUNCEMENTS AND INDEX, ISSUE 21 29 P.

US EPA. 1991 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHYLCYCLOHEXANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYLENE BROMIDE 000074-95-3

010501 KEYES DG, JW HENCK, GC JERSEY, RJ KOCIBA, DJ SCHWETZ AND TD LANDRY 1982 METHYLENE BROMIDE A 90-DAY REPEATED INHALATION TOXICITY STUDY IN RATS AND DOGS WITH A SUBSEQUENT TWO-YEAR HOLDING PERIOD FOR RATS. TOXICOLOGY RESEARCH LAB, HEALTH AND ENVIRONMENTAL SCIENCES, DOW CHEMICAL CO., MIDLAND, MI

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYLENE BROMIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYLENE CHLORIDE / (DICHLOROMETHANE) 000075-09-2

005553 NATIONAL COFFEE ASSOCIATION 1982. 24-MONTH CHRONIC TOXICITY AND ONCOGENICITY STUDY OF METHYLENE CHLORIDE IN RATS FINAL REPORT PREPARED BY HAZLETON LABORATORIES AMERICA, INC., VIENNA, VA UNPUBLISHED

US EPA 1985 DRINKING WATER CRITERIA DOCUMENT FOR METHYLENE CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC.

US EPA. 1985 RfD/RfC WORK GROUP

005552 NITSCHKE KD, JD BUREK, TJ BELL, RJ KOCIBA, LW RAMPEY AND MJ MCKENNA 1988 METHYLENE CHLORIDE· A 2-YEAR INHALATION TOXICITY AND ONCOGENICITY STUDY IN RATS. FUND APPL TOXICOL. 10: 1-12.

US EPA. 1989. UPDATED HEALTH EFFECTS ASSESSMENT FOR METHYLENE CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

METHYLENE-BIS(2-CHLOROANILINE), 4,4'- 000101-14-4

010413 STULA EF, JR BARNES, H SHERMAN, CF REINHARDY AND JA ZAPP.1977 URINARY BLADDER TUMORS IN DOGS FROM 4,4'-METHYLENE-BIS(2-CHLOROANILINE) (MOCA) J ENVIRON PATHOL TOXICOL 1(1)· 31-50

US EPA. 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 4,4'-METHYLENE-BIS(2-CHLOROANILINE) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

010933 US EPA. 1993 RfD/RfC WORK GROUP

METHYLENEDIPHENYL ISOCYANATE, 4,4- / (DIPHENYLMETHANE DIISOCYANATE) 000101-68-8

010449 REUZEL PGJ, JHG ARTS, MHM KUYPERS, ET AL 1990 CHRONIC TOXICITY/CARCINOGENICITY INHALATION STUDY OF POLYMERIC METHYLENEDIPHENYL DIISOCYANATE AEROSOL IN RATS FINAL REPORT PREPARED BY CIVO INSTITUTE FOR THE INTERNATIONAL ISOCYANATE INSTITUTE

REUZEL PGJ, JHG ARTS, LG LOMAX, ET AL 1998 CHRONIC INHALATION AND CARCINOGENICITY STUDY OF RESPIRABLE POLYMERIC METHYLENE DIPHENYL DIISOCYANATE (POLYMERIC MDI) AEROSOL IN RATS. FUND APPL TOXICOL 22 195-210

US EPA 1993. RfD/RfC WORK GROUP

METOLACHLOR 051218-45-2

010950 TISDEL M, T JACKSON, P MACWILLIAMS ET AL 1983 TWO-YEAR CHRONIC ORAL TOXICITY AND ONCOGENICITY STUDY WITH METOLACHLOR IN ALBINO RATS STUDY NO 80030. FINAL REPORT (UNPUBLISHED STUDY RECEIVED MAY 24, 1983 UNDER 100-587. PREPARED BY HAZLETON RALTECH, INC , SUBMITTED BY CIBA-GEIGY CORP , GREENSBORO, NC. CDL 250369-A, 250370, 250371, 250272, 259373, 259374, 259375) REFERRED TO AS CIBA-GEIGY, 1983 IN U S EPA (1993) MRID 00129377 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

SMITH SH, CK O'LOUGHLIN, CM SALAMON ET AL 1981 TWO-GENERATION REPRODUCTION STUDY IN ALBINO RATS WITH METOLACHLOR TECHNICAL· STUDY NO 450-0272. FINAL REPORT (UNPUBLISHED STUDY RECEIVED SEPTEMBER 30, 1981 UNDER 100-597 PREPARED BY WHITTAKER CORP , SUBMITTED BY CIBA-GEIGY CORP , GREENSBORO, NC CDL 245959-A, 245960, 245961.) REFERRED TO AS CIBA-GEIGY (1981) IN U S EPA (1993) MRID 00080897 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR METOLACHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

METRIBUZIN 021087-64-9

010928 MOBAY CHEMICAL CORPORATION 1974 MRID 000061260 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1986 RfD/RfC WORK GROUP

US EPA 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR METRIBUZIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL EFFECTS, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

MIREX 002385-85-5

010841 NTP (NATIONAL TOXICOLOGY PROGRAM) 1990 TOXICOLOGY AND CARCINOGENESIS STUDIES OF MIREX (CAS NO 2385-85-5) IN F344/N RATS (FEED STUDIES). NTP TR 313

US EPA 1992 RFD/RFC WORK GROUP

MOLINATE 002212-67-1

010017 STAUFFER CHEMICAL COMPANY 1981 MRID NO 00079209. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR MOLINATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA 1988. RfD/RfC WORK GROUP.

MOLYBDENUM 007439-98-7

010489 KOLVAL'SKIY VV, GA YAROVAYA AND DM SHMAVONYAN. 1961 CHANGES OF PURINE METABOLISM IN MAN AND ANIMALS UNDER CONDITIONS OF MOLYBDENUM BIOGEOCHEMICAL PROVINCES. ZH OBSHCH BIOL. 22: 179-191. (IN RUSSIAN, TRANSLATION)

US EPA 1991 RfD/RfC WORK GROUP.

MONOCHLORAMINE 010599-90-3

010517 NTP (NATIONAL TOXICOLOGY PROGRAM). 1990 NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF CHLORINATED AND CHLORAMINATED WATER IN F344/N RATS AND B6C3F1 MICE (DRINKING WATER STUDIES) NTP TR 392, NATIONAL INSTITUTES OF HEALTH

US EPA 1992. DRINKING WATER CRITERIA DOCUMENT FOR CHLORAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE HEALTH AND ECOLOGICAL CRITERIA DIVISION, OFFICE OF SCIENCE AND TECHNOLOGY, OFFICE OF WATER, WASHINGTON, DC

US EPA 1992 RfD/RfC WORK GROUP

NAPHTHOQUINONE, 1,4- 000130-15-4

010020 US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,4-NAPHTHOQUINONE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1991 RfD/RfC WORK GROUP

NICKEL CYANIDE 000557-19-7

010953 US EPA 1993 RfD/RfC WORK GROUP

NICKEL, SOLUBLE SALTS — VARIOUS

005579 AMBROSE, AM, DS LARSON, JR BORZELLECA AND GR HENNIGAR, JR. 1976 LONG-TERM TOXICOLOGIC ASSESSMENT OF NICKEL IN RATS AND DOGS J GOOD SCI TECHNOL. 13 181-187

US EPA. 1991 DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR NICKEL PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

US EPA 1991 RfD/RfC WORK GROUP

NICOTINONITRILE — 000100-54-9

005584 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITRILES ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITRIC OXIDE — 010102-43-9

010451 REFER TO APPENDIX A: TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS

US EPA. 1994 RfD/RfC WORK GROUP.

NITRITE — 014797-65-0

010021 WALTON G 1951 SURVEY OF LITERATURE RELATING TO INFANT METHEMOGLOBINEMIA DUE TO NITRATE-CONTAMINATED WATER AM J PUB HEALTH. 41: 986-996

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR NITRITE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1992. RfD/RfC WORK GROUP

NITROANILINE, 2- 000088-74-4

010936 US EPA 1992 RfD/RfC WORK GROUP.

010935 BIO/DYNAMICS 1983 PROJECT NO (BD-82-270) A FOUR WEEK INHALATION STUDY OF ORTHO-NITROANILINE IN MALE RATS. FINAL REPORT SUBMITTED TO DR. RASHMI NAIR, MONSANTO CO., AUGUST 16, 1983. EPA 87821478 #OTS0206486. P. 1A-17, 32-42, 46-48, 55-58, 62-67.

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROANILINE (0-, M-, P-). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1991. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2-NITROANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITROANILINE, M- 000099-09-2

010400 US EPA. 1991. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 3-NITROANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITROANILINE, P- 000100-01-6

010024 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROANILINE (0-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

NITROBENZENE 000098-95-3

005589 CIIT (CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY). 1984. NINETY-DAY INHALATION STUDY OF NITROBENZENE IN F-344 RATS, CD RATS AND B6C3F1 MICE WITH COVER LETTER DATED 6/24/84 AND EPA RESPONSE DATED 8/06/84, UNPUBLISHED STUDY. FYI-OTS-0784-0333 AND COMPUTER PRINT-OUT OF PATHOLOGY FINDING

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR NITROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1985. RfD/RfC WORK GROUP

NITROFURANTOIN 000067-20-9

005593 SRI (SOUTHERN RESEARCH INSTITUTE) 1980 SUBCHRONIC TOXICITY REPORT ON NITROFURANTOIN (C55196) IN FISCHER-344 RATS AND B6C3F1 MICE TRACOR JIT CO, INC, ROCKVILLE, MD, CONTRACT NOS N01-CP-43350 AND 78-65-106002 US EPA

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR NITROFURANS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

NITROGEN DIOXIDE 010102-44-0

010402 US EPA. 1994. RfD/RfC WORK GROUP.

010912 REFER TO APPENDIX A TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS

NITROGEN OXIDES

010170 US EPA 1982. AIR QUALITY CRITERIA FOR OXIDES OF NITROGEN. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, RESEARCH TRIANGLE PARK, NC. EPA 600/8-82-026F NTIS PB83-163337

NITROMETHANE 000075-52-5

010026 US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROMETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

NITROPHENOLS

005594 US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR NITROPHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

NITROPROPANE, 2- 000079-46-9

010374 ANGUS CHEMICAL CO 1985 FINAL REPORT. CHRONIC INHALATION EXPOSURE TO RATS TO VAPORS OF 2-NITROPROPANE AT 100 PPM PREPARED BY COULSTON INTERNATIONAL CORP FOR ANGUS CHEMICAL CO OTS NO 204292. DOC NO 8EHQ-0985-0170 FICHE NO 0200504.

ANGUS CHEMICAL CO. 1985. CHRONIC INHALATION OF 200 PPM OF2-NITROPROPANE IN RATS. PREPARED BY COULSTON INTERNATIONAL CORP (MAY 1978) FOR ANGUS CHEMICAL CO OTS NO 204292 DOC NO 8EHQ-0985-0170 FICHE NO 0200504

GRIFFIN TB, F COULSTON AND AA STEIN. 1980 CHRONIC INHALATION EXPOSURE OF RATS TO VAPORS OF 2-NITROPROPANE AT 25 PPM ECOTOXICOL ENVIRON SAF 4(3): 267-281

GRIFFIN TB, AA STEIN, F COULSTON. 1981 HISTOLOGICAL STUDY OF TISSUES AND ORGANS FROM RATS EXPOSED TO VAPORS OF 2-NITROPROPANE AT 25 PPM ECOTOXOCOL ENVIRON SAF 5(2). 194-201

US EPA 1990 RfD/RfC WORK GROUP

NITROSODIPHENYLAMINE, P- 000156-10-5

010027 US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

NITROTOLUENE, M- 000099-08-1

010029 CISS M, N HUYEN, H DUTERTRE, N PHU-LICH AND R TRUHAUT 1980. TOXICOLOGICAL STUDY OF NITROTOLUENES· LONG-TERM TOXICITY. DAKAR MEDICAL 25. 293-302.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROTOLUENES (O-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITROTOLUENE, O- 000088-72-2

010028 CISS M, N HUYEN, H DUTERTRE, N PHU-LICH AND R TRUHAUT 1980. TOXICOLOGICAL STUDY OF NITROTOLUENES LONG-TERM TOXICITY DAKAR MEDICAL 25 293-302

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROTOLUENES (O-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

NITROTOLUENE, P- 000099-99-0

010030 CISS M, N HUYEN, H DUTERTRE, N PHU-LICH AND R TRUHAUT 1980 TOXICOLOGICAL STUDY OF NITROTOLUENES: LONG-TERM TOXICITY DAKAR MEDICAL 25 293-302

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROTOLUENES (O-, M-, P-). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

OCTABROMODIPHENYL ETHER 032536-52-0

010032 CARLSON GP 1980 INDUCTION OF XENOBIOTIC METABOLISM IN RATS BY BROMINATED DIPHENYL ETHERS ADMINISTERED FOR 90 DAYS TOXICOL LETT. 6: 207-212

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIPHENYL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1986. RfD/RfC WORK GROUP.

OCTAMETHYLPYROPHOSPHORAMIDE 000152-16-9

010031 RIDER JA, HC MOELLER, EJ PULETTI AND JI SWADER 1969 TOXICITY OF PARATHION, SYSTOX, OCTAMETHYLPYROPHOSPHORAMINE AND METHYL PARATHION IN MAN TOXICOL APPL PHARMACOL 14(3). 603-611.

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR OCTAMETHYLPYROPHOSPHORAMIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

OSMIUM TETROXIDE 020816-12-0

010954 US EPA 1993 RfD/RfC WORK GROUP

OZONE 010028-15-6

010171 US EPA 1986. AIR QUALITY CRITERIA FOR OZONE AND OTHER PHOTOCHEMICAL OXIDANTS. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, RESEARCH TRIANGLE PARK, NC. EPA 600/8-84-020F. NTIS PB87-142949

PARALDEHYDE 000123-63-7

010033 US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PARALDEHYDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

PARATHION 000056-38-2

005598 US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR PARATHION PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

PARTICULATE MATTER

010034 US EPA. 1987 AIR QUALITY CRITERIA FOR PARTICULATE MATTER AND SULFUR OXIDES OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, RESEARCH TRIANGLE PARK, NC EPA 600/8-82-029F.NTIS PB84-156777.

PEBULATE 001114-71-2

010036 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PEBULATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

PENDIMETHALIN 040487-42-1

010037 AMERICAN CYANAMID COMPANY. 1979 CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 0058657. AVAILABLE FROM EPA WRITE TO FOI. EPA, WASHINGTON, DC 20460

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PENDIMETHALIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1987 RfD/RfC WORK GROUP.

PENTABROMODIPHENYL ETHER 032534-81-9

010038 CARLSON GP. 1980. INDUCTION OF XENOBIOTIC METABOLISM IN RATS BY BROMINATED DIPHENYL ETHERS ADMINISTERED FOR 90 DAYS. TOXICOL LETT 6 207-212

US EPA 1983. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIPHENYL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1986 RfD/RfC WORK GROUP

PENTACHLOROBENZENE 000608-93-5

010039 LINDER R, T SCOTTI J GOLDSTEIN AND K MCELROY. 1980 ACUTE AND SUBCHRONIC TOXICITY OF PENTACHLOROBENZENE J ENVIRON PATHOL TOXICOL 4(5-6): 183-196.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR PENTACHLOROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1985 RfD/RfC WORK GROUP.

PENTACHLOROCYCLOPENTADIENE 025329-35-5

005302 US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED CYCLOPENTADIENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

PENTACHLORONITROBENZENE 000082-68-8

010040 OLIN CORPORATION 1968 MRID NO 000114201 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PENTACHLORONITROBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1987 RfD/RfC WORK GROUP

PENTACHLOROPHENOL 000087-86-5

005600 SCHWETZ, BA, JF QUAST, PA KEELER ET AL. 1978 RESULTS OF TWO-YEAR TOXICITY AND REPRODUCTION STUDIES ON PENTACHLOROPHENOL IN RATS IN PENTACHLOROPHENOL CHEMISTRY, PHARMACOLOGY AND ENVIRONMENTAL TOXICOLOGY, KR RAO, ED PLENUM PRESS, NEW YORK, P301 CITED IN US EPA, 1985

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PENTACHLOROPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR PENTACHLOROPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1985 RfD/RfC WORK GROUP

PENTACHLOROPROPENE, 1,1,2,3,3,- 001600-37-9

010041 US EPA 1983 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROPROPENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

PENTANE, N- **000109-66-0**

005603 US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR N-PENTANE. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC

PHENANTHRENE **000085-01-8**

005604 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENANTHRENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1994 RfD/RfC WORK GROUP

PHENOL **000108-95-2**

005824 NTP (NATIONAL TOXICOLOGY PROGRAM). 1983. TERATOLOGIC EVALUATION OF PHENOL IN CD RATS. REPORT PREPARED BY THE RESEARCH TRIANGLE INSTITUTE. RESEARCH TRIANGLE PARK. NC NTIS PB83-247726. GOVT REP ANNOUNCE INDEX 83(25): 6247

US EPA 1989 UPDATED HEALTH EFFECTS ASSESSMENT FOR PHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH. FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC

US EPA. 1989. RfD/RfC WORK GROUP.

010913 US EPA. 1990. RfD/RfC WORK GROUP

PHENYLENEDIAMINE, M- **000108-45-2**

010044 HOFER H AND R HRUBY. 1982 NINETY-DAY TOXICITY STUDY WITH M-PHENYLENEDIAMINE ON RATS OESTERR FORSCHUNGS ZENT SEIBERSDORF (BER) OEFZS BER. NO 4155. P 50.

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENYLENEDIAMINES (O-. M-. P-). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA 1986 RfD/RfC WORK GROUP.

PHENYLENEDIAMINE, O- **000095-54-5**

010042 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENYLENEDIAMINES (O-. M-. P-). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

PHENYLENEDIAMINE, P- **000106-50-3**

010043 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENYLENEDIAMINES (O-. M-. P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

PHENYLMERCURIC ACETATE 000062-38-4

010277 FITZHUGH OG, AA NELSON, EP LAUG AND IM KUNZE. 1950 CHRONIC ORAL TOXICITIES OF MERCURIC PHENYL AND MERCURIC SALTS ARCH IND HYG OCCUP MED. 2. 433-442.

US EPA. 1986. RfD/RfC WORK GROUP.

PHORATE 000298-02-2

010403 TUSING TW. 1956. 13-WEEK SUBACUTE THIMET FEEDING STUDY IN MALE AND FEMALE RATS. UNPUBLISHED REPORT OF THE AMERICAN CYANAMID CO. INITIAL SCIENTIFIC AND MINI-ECONOMIC REVIEW OF PHORATE (THIMET) OFFICE OF PESTICIDE PROGRAMS, US EPA, WASHINGTON, DC

US EPA. 1985. SUMMARY OF ACCEPTABLE DAILY INTAKES (ADIS) FOR ORAL EXPOSURE PREPARED BY ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH INTERNAL REVIEW DRAFT, MAY, 1985 ECAO-CIN-432

NAS (NATIONAL ACADEMY OF SCIENCES) 1977 DRINKING WATER AND HEALTH SAFE DRINKING WATER COMMITTEE, NATIONAL RESEARCH COUNCIL. NAS, WASHINGTON, DC. P 613-620

PHOSGENE 000075-44-5

010045 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHOSGENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1990 RfD/RfC WORK GROUP.

PHOSPHINE 007803-51-2

010174 HACKENBERG, J 1972 CHRONIC INGESTION BY RATS OF STANDARD DIET TREATED WITH ALUMINUM PHOSPHIDE TOXICOL APPL PHARMACOL 23: 147-158.

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR PHOSPHINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1985 RfD/RfC WORK GROUP.

010976 BARBOSA A, E ROSINOVA, J DEMPSEY AND AM BONIN. 1994 DETERMINATION OF GENOTOXIC AND OTHER EFFECTS IN MICE FOLLOWING SHORT-TERM, REPEATED DOSE, AND SUBCHRONIC INHALATION EXPOSURE TO PHOSPHINE ENVIRON MOLEC MUTAGENESIS 24 81-88

US EPA 1995. RfD/RfC WORK GROUP.

PHOSPHORUS, WHITE **007723-14-0**

010452 CONDRAY JR 1985. ELEMENTAL YELLOW PHOSPHORUS ONE-GENERATION REPRODUCTION STUDY IN RATS. IR-82-215 MRID NO 401-189 MONSANTO CO ST LOUIS, MO. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1990. RfD/RfC WORK GROUP.

PHOTOCHEMICAL OXIDANTS

010172 US EPA. 1986. AIR QUALITY CRITERIA FOR OZONE AND OTHER PHOTOCHEMICAL OXIDANTS. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, RESEARCH TRIANGLE PARK, NC. EPA 600/8-84-020F. NTIS PB87-142949

PHTHALIC ACID, M- **000121-91-5**

010047 US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHTHALIC ACIDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

PHTHALIC ACID, O- **000088-99-3**

010046 US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHTHALIC ACIDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

PHTHALIC ACID, P- **000100-21-0**

010048 CIIT (CHEMICAL INDUSTRY INSTITUTE OF TECHNOLOGY). 1982 A NINETY-DAY STUDY OF TEREPHTHALIC ACID-INDUCED UROLITHIASIS AND REPRODUCTIVE PERFORMANCE IN WISTAR AND CD RATS. CIIT, RESEARCH TRIANGLE PARK, NC

GROSS, J 1974 THE EFFECTS OF PROLONGED FEEDING OF TEREPHTHALIC ACID (TPA) TO RATS. PROJECT FG-IS-175 AGRICULTURAL RESEARCH SERVICE, US DEPARTMENT OF AGRICULTURE, WASHINGTON, DC.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHTHALIC ACIDS (O-, M-, P-) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

PHTHALIC ANHYDRIDE 000085-44-9

010049 NCI (NATIONAL CANCER INSTITUTE) 1979. BIOASSAY OF PHTHALIC ANHYDRIDE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS TECH REP SER NO. 159 NTIS PB293594

US EPA 1988. RfD/RfC WORK GROUP.

010847 NIELSEN, J. H WELINDER. A SCHUTZ AND S SKERFVING. 1988.SPECIFIC SERUM ANTIBODIES AGAINST PHTHALIC ANHYDRIDE IN OCCUPATIONALLY EXPOSED SUBJECTS. J ALLERGY CLIN IMMUNOL 82 126-33

US EPA 1992. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR PHTHALIC ANHYDRIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

POLYBROMINATED BIPHENYLS

010050 NTP (NATIONAL TOXICOLOGY PROGRAM) 1983 CARCINOGENESIS STUDIES OF POLYBROMINATED BIPHENYL MIXTURE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) FIREMASTER FF-1 CASE NO 67774-32-7 NTP, RESEARCH TRIANGLE PARK, NC

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR POLYBROMINATED BIPHENYLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

POTASSIUM CYANIDE 000151-50-8

010278 HOWARD JW AND RF HANZAL 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE AGRIC FOOD CHEM 3. 325-329.

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON. 1979. EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS J TOXICOL ENVIRON HEALTH 5 579-592

US EPA 1985 RfD/RfC WORK GROUP.

POTASSIUM SILVER CYANIDE 000506-61-6

010279 HOWARD JW AND RF HANZAL 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE AGRIC FOOD CHEM. 3. 325-329

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON 1979 EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS J TOXICOL ENVIRON HEALTH 5 579-592

US EPA. 1985 RfD/RfC WORK GROUP

PROFLURALIN 026399-36-0

010051 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PROFLURALIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

PRONAMIDE 023950-58-5

010280 ROHM & HAAS, CO 1970. ACC NOS 000967, 004417.

US EPA 1986 RfD/RfC WORK GROUP

PROPACHLOR 001918-16-7

010175 MONSANTO COMPANY. 1964 CONFIDENTIAL BUSINESS INFORMATION UNPUBLISHED STUDY. MRID NO 0093270. AVAILABLE FROM EPA. WRITE TO FOI. EPA. WASHINGTON, DC 20460.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PROPACHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986. RfD/RfC WORK GROUP.

PROPAZINE 000139-40-2

010052 GEIGY COMPANY 1980. CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY ACCESSION NO 243353

US EPA. 1987 RfD/RfC WORK GROUP

PROPIONITRILE 000107-12-0

010053 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PROPIONITRILE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

PROPYL ALCOHOL, N- 000071-23-8

005627 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR N-PROPYL ALCOHOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

PROPYLENE GLYCOL 000057-55-6

005631 GAUNT, IF, RMB CARPANINI, P GRASSO AND ABG LANSDOWN. 1972 LONG-TERM TOXICITY OF PROPYLENE GLYCOL IN RATS. FOOD COSMET TOXICOL. 10 151-162.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR PROPYLENE GLYCOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

005629 GUERRANT, NB, GP WHITLOCK, ML WOLFF AND RA DUTCHER. 1947.RESPONSE OF RATS TO DIETS CONTAINING VARYING AMOUNTS OF GLYCEROL AND PROPYLENE GLYCOL. BULL NATL FORMULARY COMM. 15· 204-229. CITED IN INFORMATICS, INC. 1973

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR PROPYLENE GLYCOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010914 US EPA. 1991 RfD/RfC WORK GROUP.

PROPYLENE GLYCOL MONOETHYL ETHER 001569-02-4

005488 SMYTH, HF, JR AND CP CARPENTER. 1948. FURTHER EXPERIENCE WITH THE RANGE FINDING TEST IN THE INDUSTRIAL TOXICOLOGY LABORATORY J IND HYG TOXICOL 30 63-68.

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010915 US EPA. 1991. RfD/RfC WORK GROUP.

PROPYLENE GLYCOL MONOMETHYL ETHER 000107-98-2

005486 ROWE, VK, DD MCCOLLISTER, HC SPENCER ET AL. 1954 TOXICOLOGY OF MONO-, DI-, AND TRI-PROPYLENE GLYCOL METHYL ETHERS.ARCH IND HYG OCCUP MED. 9: 509-525.

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC. EPA 540/1-86-052.

US EPA. 1991. RfD/RfC WORK GROUP

010276 LANDRY TD, TS GUNSHOW AND BL YANO. 1983. PROPYLENE GLYCOL MONOMETHYL ETHER A 13-WEEK INHALATION STUDY IN RATS AND RABBITS. FUND APPL TOXICOL 3. 627-630

MILLER RR, EA HERMAN, JT YOUNG ET AL 1984. ETHYLENE GLYCOL MONOMETHYL ETHER· METABOLISM, DISPOSITION, AND SUBCHRONIC INHALATION TOXICITY STUDIES ENVIRON HEALTH PERSPECT 57: 233-239.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR GLYCOL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC EPA 540/1-86-052

PROPYLENE OXIDE 000075-56-9

010375 KUPER CF, PGJ REUZEL, VJ FERON, ET AL. 1988. CHRONIC INHALATION TOXICITY AND CARCINOGENICITY OF PROPYLENE OXIDE IN WISTAR RATS. FOOD CHEM TOXICOL. 26(2)· 159-167.

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PROPYLENE OXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1990 RfD/RfC WORK GROUP

PYRENE 000129-00-0

010176 US EPA 1989. MOUSE ORAL SUBCHRONIC TOXICITY STUDY OF PYRENE STUDY CONDUCTED BY TOXICITY RESEARCH LABORATORIES, MUSKEGON, 3MI FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR PYRENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR PYRENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1989 RfD/RfC WORK GROUP

010968 US EPA 1994 RfD/RfC WORK GROUP

PYRIDINE 000110-86-1

010055 US EPA 1986. PYRIDINE. 90-DAY SUBCHRONIC ORAL TOXICITY IN RATS SPONSORED BY OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PYRIDINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA. 1987 RfD/RfC WORK GROUP.

RDX / (CYCLONITE) 000121-82-4

010056 LEVINE BS EM FUREDI, VS RAE, DE GORDON AND DM LISH 1984 DETERMINATION OF THE CHRONIC MAMMALIAN TOXICOLOGICAL EFFECTS OF RDX. TWENTY-FOUR MONTH CHRONIC TOXICITY/CARCINOGENICITY STUDY OF HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX) IN THE FISCHER 344 RAT. NTIS AD-A160774. VOL 1 347 P

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR RDX (CYCLONITE) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1988 RfD/RfC WORK GROUP.

RONNEL 000299-84-3

010057 MCCOLLISTER DD, F OYEN AND VK ROWE 1959. TOXICOLOGICAL STUDIES OF 0,0-DIMETHYL-0-(2,4,5-TRICHLOROPHENYL)PHOSPHOTHIOATE (RONNEL) IN LABORATORY ANIMALS. J AGRIC FOOD CHEM. 7: 689

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR RONNEL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

SELENIOUS ACID 007783-00-8

010504 YANG G, S YIN, L ZHOU, ET AL 1989. STUDIES OF SAFE MAXIMAL DAILY DIETARY SE-INTAKE IN A SELENIFEROUS AREA IN CHINA II RELATION BETWEEN SE-INTAKE AND THE MANIFESTATION OF CLINICAL SIGNS AND CERTAIN BIOCHEMICAL ALTERATIONS IN BLOOD AND URINE J TRACE ELEM ELECTROLYTES HEALTH DIS 3: 123-130.

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELENIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

US EPA. 1991 RfD/RfC WORK GROUP

SELENIUM **007782-49-2**

010404 YANG G, S YIN, L ZHOU, ET AL. 1989. STUDIES OF SAFE MAXIMAL DAILY DIETARY SE-INTAKE IN A SELENIFEROUS AREA IN CHINA, II. RELATION BETWEEN SE-INTAKE AND THE MANIFESTATION OF CLINICAL SIGNS AND CERTAIN BIOCHEMICAL ALTERATIONS IN BLOOD AND URINE. J TRACE ELEM ELECTROLYTES HEALTH DIS. 3 123-130

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELENIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1991. RfD/RfC WORK GROUP

SELENOUREA **000630-10-4**

010473 YANG C, S WANG, R ZHOU, AND S SUN 1983 ENDEMIC SELENIUM INTOXICATION OF HUMANS IN CHINA AM J CLIN NUTR 37: 872-888

SILVER **007440-22-4**

010453 GAUL LE AND AN STAUD 1935 CLINICAL SPECTROSCOPY. SEVENTY CASES OF GENERALIZED ARGYRIA FOLLOWING ORGANIC AND COLLOIDAL SILVER MEDICATION, J AM MED ASSOC. 104: 1387-1390.

BLUMBERG H AND TN CAREY 1934 ARGYREMIA DETECTION OF UNSUSPECTED AND OBSCURE ARGYRIA BY THE SPECTROGRAPHIC DEMONSTRATION OF HIGH BLOOD SILVER J AM MED ASSOC 103. 1521-1524

EAST BW, K BODDY, ED WILLIAMS, D MACINTYRE AND ALC MCLAY 1980. SILVER RETENTION, TOTAL BODY SILVER AND TISSUE SILVER CONCENTRATIONS IN ARGYRIA ASSOCIATED WITH EXPOSURE TO AN ANTI-SMOKING REMEDY CONTAINING SILVER ACETATE. CLIN EXP DERMATOL 5 305-311

SILVER CYANIDE **000506-64-9**

010283 HOWARD JW AND RF HANZAL 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE. AGRIC FOOD CHEM 3: 325-329

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON. 1979 EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS J TOXICOL ENVIRON HEALTH. 5: 579-592.

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR SODIUM CYANIDE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1985 RfD/RfC WORK GROUP.

SIMAZINE **000122-34-9**

010955 CIBA-GEIGY CORP 1988 MRID NO 40614405, HED DOCUMENT NO 007240, 007449 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA 1991. RfD/RfC WORK GROUP

SODIUM CYANIDE 000143-33-9

005640 HOWARD, JW AND RF HANZAL. 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE. J AGRIC FOOD CHEM. 3: 325-329.CITED IN US EPA, 1985

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR SODIUM CYANIDE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1985 INTEGRATED RISK INFORMATION SYSTEM (IRIS). REFERENCE DOSE (RFD) FOR ORAL EXPOSURE FOR SODIUM CYANIDE. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH

US EPA 1985 RfD/RfC WORK GROUP.

SODIUM DIETHYLDITHIOCARBAMATE 000148-18-5

005644 SUNDERMAN, FW, OE PAYNTER AND RB GEORGE 1967 THE EFFECTS OF THE PROTRACTED ADMINISTRATION OF THE CHELATING AGENT, SODIUM DIETHYLDITHIOCARBAMATE (DITHIOCARB) AM J MED SCI. 254 46-56.

US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SODIUM DIETHYLDITHIOCARBAMATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1985. RfD/RfC WORK GROUP.

SODIUM METAVANADATE 013718-26-8

005735 DOMINGO, JL, JL LLOBET, JM TOMAS AND J CORBELLA. 1985 SHORT-TERM TOXICITY STUDIES OF VANADIUM IN RATS J APPL TOXICOL. 5(6): 418-421

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR VANADIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

STRONTIUM, STABLE 007440-24-6

010842 STOREY E 1961. STRONTIUM 'RICKETS' BONE CALCIUM AND STRONTIUM CHANGES AUSTRAL ANN MED. 10. 2132-222

SKORYNA SC 1981 EFFECTS OF ORAL SUPPLEMENTATION WITH STABLE STRONTIUM. CAN MED ASSOC J 125 703-712

MARIE PJ, MT GARBA, M HOTT AND L MIRAVET. 1985 EFFECT OF LOW DOSES OF STABLE STRONTIUM ON BONE METABOLISM IN RATS MINER ELECTROLYTE METAB 11 5-13.

US EPA. 1990. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR STABLE STRONTIUM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1992 RfD/RfC WORK GROUP

STRYCHNINE 000057-24-9

010285 SEIDL I AND G ZBINDEN. 1982. SUBCHRONIC ORAL TOXICITY OF STRYCHNINE IN RATS. ARCH TOXICOL 51(3) 267-271

US EPA. 1985 RfD/RfC WORK GROUP.

STYRENE 000100-42-5

010059 QUAST JF, CG HUMISTON, RT KALNINS, ET AL 1979 RESULTS OF A TOXICITY STUDY OF MONOMERIC STYRENE ADMINISTERED TO BEAGLE DOGS BY ORAL INTUBATION FOR 19 MONTHS TOXICOLOGY RESEARCH LABORATORY, HEALTH AND ENVIRONMENTAL SCIENCES, DOW CHEMICAL CO , MIDLAND, MI FINAL REPORT

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR STYRENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1985 RfD/RfC WORK GROUP.

010511 MUTTI A, A MAZZUCCHI, P RUSTICHELLI, G FRIZERI, G ARFINI, I FRANCHINI. 1984 EXPOSURE EFFECT AND EXPOSURE RESPONSE THE RELATIONSHIP BETWEEN OCCUPATIONAL EXPOSURE TO STYRENE AND NEUROPSYCHOLOGICAL FUNCTION AMER J IND MED 5 275-286.

US EPA 1992 RfD/RfC WORK GROUP.

SUCCINONITRILE 000110-61-2

005585 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITRILES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

SULFUR DIOXIDE 007446-09-5

010505 REFER TO APPENDIX A TECHNICAL INFORMATION, SECTION V ON NATIONAL AMBIENT AIR QUALITY STANDARDS

SULFUR OXIDES

010035 US EPA. 1987. AIR QUALITY CRITERIA FOR PARTICULATE MATTER AND SULFUR OXIDES. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, RESEARCH TRIANGLE PARK, NC EPA 600/8-82-029F NTIS PB84-156777

SULFURIC ACID 007664-93-9

005647 CARSON, BL, BL HERNDON, HV ELLIS III, ET AL 1981. SULFURIC ACID HEALTH EFFECTS. PREPARED UNDER CONTRACT 68-03-2928 BY MIDWEST RESEARCH INSTITUTE, KANSAS CITY, MO PREPARED FOR EMISSION CONTROL TECHNOLOGY DIVISION, OFFICE OF MOBILE SOURCE AIR POLLUTION CONTROL US EPA, ANN ARBOR, MI. EPA 460/3-81-025. NTIS PB82-113135.

US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR SULFURIC ACID. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

TEMEPHOS 003383-96-8

010060 GAINES TB, RD KIMBROUGH AND ER LAW, JR. 1967 TOXICOLOGY OF ABATE IN LABORATORY ANIMALS. ARCH ENVIRON HEALTH. 14: 283-288

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TEMEPHOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

TERBUFOS 013071-79-9

010408 MORGAREIDGE K, S SISTNER, M DANIELS ET AL. 1973 FINAL REPORT: SIX-MONTH FEEDING STUDY IN DOGS ON AC-92,100 LABORATORY NO. 1193 FEBRUARY 14. UNPUBLISHED STUDY FOOD AND DRUG LABORATORIES, INC. MRID NO. 41139 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1987. HEALTH ASSESSMENT DOCUMENT FOR TERBUFOS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

TEREPHTHALIC ACID 000100-21-0

010474 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TEREPHTHALIC ACID. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

TETRACHLOROAZOXYBENZENE 021232-47-3

010064 US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TCAB, TCAOB AND TCHB PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TETRACHLOROBENZENE, 1,2,4,5- 000095-94-3

010286 CHU I, DC VILLENEUVE, VE VALLI AND VE SECOURS. 1984 TOXICITY OF 1,2,3,4-, 1,2,3,5- AND 1,2,4,5-TETRACHLOROBENZENE IN THE RAT· RESULTS OF A 90-DAY FEEDING STUDY. DRUG CHEM TOXICOL 7· 113-127

US EPA 1985 RfD/RfC WORK GROUP.

TETRACHLOROCYCLOPENTADIENE 000695-77-2

005303 US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED CYCLOPENTADIENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TETRACHLOROETHANE, 1,1,1,2- **000630-20-6**

010407 NTP (NATIONAL TOXICOLOGY PROGRAM) 1983. CARCINOGENESIS STUDIES OF 1,1,1,2-TETRACHLOROETHANE IN F344/N RATS AND B6C3F1MICE NTP, WASHINGTON, DC.

US EPA 1987. RfD/RfC WORK GROUP.

US EPA. 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR TETRACHLOROETHANE, 1,1,1,2- PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

TETRACHLOROETHYLENE **000127-18-4**

005650 BUBEN, JA AND EJ O'FLAHERTY. 1985. DELINEATION OF THE ROLE OF METABOLISM IN THE HEPATOXICITY OF TRICHLOROETHYLENE AND PERCHLOROETHYLENE: A DOSE-EFFECT STUDY TOXICOL APPL PHARMACOL 78: 105-122

US EPA 1987. RfD/RfC WORK GROUP

TETRACHLOROHYDRAZOBENZENE **071753-42-9**

010065 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TCAB, TCAOB AND TCHB PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TETRACHLOROPHENOL, 2,3,4,5- **004901-51-3**

005324 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

TETRACHLOROPHENOL, 2,3,4,6- **000058-90-2**

005323 US EPA. 1986 2,3,4,6-TETRACHLOROPHENOL, 90-DAY SUBCHRONIC ORAL TOXICITY STUDY IN RATS OFFICE OF SOLID WASTE, WASHINGTON, DC

TETRACHLOROPHENOL, 2,3,5,6- **000935-95-5**

005325 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

US EPA. 1987 RfD/RfC WORK GROUP

TETRACHLOROPROPENE, 1,1,2,3- **010436-39-2**

010066 US EPA 1983. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROPROPENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

TETRACHLOROVINPHOS / (STIROPHOS) **000961-11-5**

010067 SHELL CHEMICAL COMPANY 1968. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY. ACCESSION NO 115684

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR STIROFOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC.

US EPA 1986. RfD/RfC WORK GROUP

TETRAETHYL DITHIOPYROPHOSPHATE **003689-24-5**

010287 KIMMERLE G AND OR KLIMMER. 1974. ACUTE AND SUBCHRONIC TOXICITY OF SULFOTEP ARCH TOXICOL. 33(1)· 1-16.

US EPA. 1988. RfD/RfC WORK GROUP.

THALLIC OXIDE **001314-32-5**

010956 US EPA. 1993. RfD/RfC WORK GROUP.

THALLIUM (I) ACETATE **000563-68-8**

005664 US EPA 1986 SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CA NO 7446-18-6) IN SPRAGUE-DAWLEY RATS. FINAL REPORT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA 1988 RfD/RfC WORK GROUP

THALLIUM (I) CARBONATE **006533-73-9**

005668 US EPA 1986. SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CA NO 7446-18-6) IN SPRAGUE-DAWLEY RATS FINAL REPORT ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1988 RfD/RfC WORK GROUP.

THALLIUM (I) CHLORIDE 007791-12-0

005672 US EPA. 1986. SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CA NO 7446-18-6) IN SPRAGUE-DAWLEY RATS FINAL REPORT ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1988 RfD/RfC WORK GROUP.

THALLIUM (I) NITRATE 010102-45-1

005676 US EPA 1986 SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CA NO. 7446-18-6) IN SPRAGUE-DAWLEY RATS FINAL REPORT ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1988 RfD/RfC WORK GROUP

THALLIUM (I) SULFATE 007446-18-6

005682 US EPA 1986 SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CA NO 7446-18-6) IN SPRAGUE-DAWLEY RATS. FINAL REPORT ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1988 RfD/RfC WORK GROUP.

THALLIUM (IN SOLUBLE SALTS)

010458 US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THALLIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

THALLIUM SELENITE 012039-52-0

010957 US EPA 1993 RfD/RfC WORK GROUP.

THIOCYANOMETHYLTHIO)BENZOTHIAZOLE, 2-(021564-17-0

010068 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TCMTB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

THIOFANOX 013196-18-4

010069 US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THIOFANOX PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

THIRAM 000137-26-8

010459 E I. DU PONT DE NEMOURS AND COMPANY, INC. 1954. MRID NO 0045162. AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1987 RfD/RfC WORK GROUP.

010070 HORNSHAW TC, RJ AULERICH AND RK RINGER. 1987 TOXICITY OF THIRAM (TETRAMETHYLTHINORAM DISULFIDE) TO MINK AND EUROPEAN FERRETS BULL ENVIRON CONTAM TOXICOL 38(4): 618-626

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR THIRAM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TIN AND COMPOUNDS

005688 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982 CARCINOGENESIS BIOASSAY OF STANNOUS CHLORIDE (CAS NO 7772-99-8) IN F344/N RATS AND B6C3F1/N MICE (FEED STUDY). NCI/NTP TECH REP SER NO 231. ALSO PUBL AS DHHS (NIH) PUBL ISS NIH 82-1787 AND NTIS PB 82-242-553.

US EPA 1986. SUBCHRONIC (90 DAY) TOXICITY OF THALLIUM (I) SULFATE (CAS NO. 7446-18-6) IN SPRAGUE-DAWLEY RATS FINAL REPORT ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR TIN ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TOLUENE 000108-88-3

010469 NTP (NATIONAL TOXICOLOGY PROGRAM). 1989. TOXICOLOGY AND CARCINOGENESIS STUDIES OF TOLUENE IN F344 RATS AND B6C3F1 MICE. TECHNICAL REPORT SERIES NO 371

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR TOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1990. RfD/RfC WORK GROUP

010844 FOO S, J JEYARATHAM AND D KOH. 1990. CHRONIC NEUROBEHAVIORAL EFFECTS OF TOLUENE. BR J IND MED. 47(7): 480-484.

NTP (NATIONAL TOXICOLOGY PROGRAM). 1990 TOXICOLOGY AND CARCINOGENESIS STUDIES OF TOLUENE IN F344/N RATS AND B6C3F1 MICE (INHALATION STUDIES). NTP TR 371 253 P

US EPA 1991 RfD/RfC WORK GROUP

TOLUENE-2,5-DIAMINE 000095-70-5

010073 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF TOLUENE-2,5-DIAMINE SULFATE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS TECH REP SER NO 126

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR SELECTED TOLUENEDIAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

TOLUENE-2,6-DIAMINE 000823-40-5

010074 NCI (NATIONAL CANCER INSTITUTE) 1980 BIOASSAY OF 2,6-TOLUENEDIAMINE DIHYDROCHLORIDE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 200

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR SELECTED TOLUENEDIAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

TOLUENEDIAMINE, 2,3- 002687-25-4

010071 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR SELECTED TOLUENEDIAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

TOLUENEDIAMINE, 3,4- 000496-72-0

010072 US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR SELECTED TOLUENEDIAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

TOLUIDINE, M- **000108-44-1**

010075 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TOLUIDINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC.

TRIALLATE **002303-17-5**

010076 MONSANTO COMPANY. 1979. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY ACCESSION NO 242057.

US EPA 1986 RfD/RfC WORK GROUP

TRIBROMOBENZENE, 1,2,4- **000615-54-3**

010077 CARLSON GP AND RG TARDIFF. 1977 EFFECT OF 1.4-DIBROMODIBENZENE AND 1.2.4-TRIBROMOBENZENE ON XENOBIOTIC METABOLISM. TOXICOL APPL PHARMACOL. 42. 189-196.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOBENZENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1986. RfD/RfC WORK GROUP

TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- **000076-13-1**

010460 INBUS HR AND C ATKINS 1972 PHYSICAL EXAMINATION OF WORKERS EXPOSED TO TRICHLOROTRIFLUOROETHANE. ARCH ENVIRON HEALTH. 24(4): 257-261

010376 TRACHIMOWICZ HJ. GM RUSCH. T CHIU. ET AL. 1988 CHRONIC INHALATION TOXICITY/CARCINOGENICITY STUDY IN RATS EXPOSED TO FLUOROCARBON 113 (FC-113) FUND APPL TOXICOL. 11(1): 68-75.

US EPA 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1.1.2-TRICHLORO-1.2.2-TRIFLUOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC.

TRICHLORO-2'-HYDROXYDIPHENYLETHER, 2,2,4'- **003380-34-5**

005492 LYMAN. FL AND T FURIA. 1969. TOXICOLOGY OF 2.4.4'-TRICHLORO-2'-HYDROXYDIPHENYL ETHER. IND MED. 38: 45-52.

US EPA 1987 HEALTH EFFECTS AND ENVIRONMENTAL DOCUMENT FOR HALOETHERS ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

TRICHLOROBENZENE, 1,2,4- 000120-82-1

010506 ROBINSON, KS, RJ KAVLOCK, N CHERNOFF AND E GRAY 1981 MULTIGENERATION STUDY OF TRICHLOROBENZENE IN RATS. J TOXICOL ENVIRON. HEALTH. 8 489-500

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR 1,2,4-TRICHLOROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC.

010958 KOCIBA RJ, BKL LEONG, RE HEFNER, JR. 1981 SUBCHRONIC TOXICITY STUDY OF 1,2,4-TRICHLOROBENZENE IN THE RAT, RABBIT AND BEAGLE DOG. DRUG AND CHEMICAL TOXICOLOGY 4(3)· 229-249.

COATE WB, TR LEWIS, WM BUSEY 1977. CHRONIC INHALATION EXPOSURE OF RATS, RABBITS AND MONKEYS TO 1,2,4-TRICHLOROBENZENE ARCHIVES OF ENVIRONMENTAL HEALTH. 32(6) 249-255

COTE M, I CHU, DC VELLENEUVE, VE SECOURS, VE VALLI 1988. TRICHLOROBENZENES: RESULTS OF A THIRTEEN WEEK FEEDING STUDY IN THE RAT DRUG AND CHEMICAL TOXICOLOGY 11(1)· 11-28.

US EPA. 1993. *RfD/RfC WORK GROUP.*

TRICHLOROCYCLOPENTADIENE 077323-84-3

005304 US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED CYCLOPENTADIENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRICHLOROETHANE, 1,1,2- 000079-00-5

005702 WHITE, KL JR, VM SANDERS, VW BARNES, GM SHOPP AND AE MUNSON. 1985 TOXICOLOGY OF 1,1,2 TRICHLOROETHANE IN THE MOUSE DRUG CHEM TOXICOL. 8(5): 333-355.

SANDERS, VM, KL WHITE JR, GM SHOPP JR AND AE MUNSON 1985 HUMORAL AND CELL MEDIATED IMMUNE STATUS OF MICE EXPOSED TO 1,1,2 TRICHLOROETHANE DRUG CHEM TOXICOL 8(5) 357-372

US EPA 1990 RfD/RfC WORK GROUP

TRICHLOROFLUOROMETHANE **000075-69-4**

005502 NCI (NATIONAL CANCER INSTITUTE) 1978. BIOASSAY OF TRICHLOROFLUOROMETHANE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS TECH REP SER NO 106. ALSO PUBL AS DHEW (NIH) 78-1356

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1985 RfD/RfC WORK GROUP.

005500 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF TRICHLOROFLUOROMETHANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 106. ALSO PUBL AS DHEW (NIH) 78-1356

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

TRICHLOROPHENOL, 2,3,4- **015950-66-0**

005330 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENT ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRICHLOROPHENOL, 2,3,5- **000933-78-8**

005331 US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENT ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRICHLOROPHENOL, 2,3,6- **000933-75-5**

005332 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENT ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRICHLOROPHENOL, 2,4,5- 000095-95-4

005329 MCCOLLISTER, DD, DT LOCKWOOD AND VK ROWE 1961 *TOXICOLOGIC INFORMATION ON 2,4,5-TRICHLOROPHENOL* TOXICOL APPL PHARMACOL 3 63-70.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR 2,4,5-TRICHLOROPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1985. RfD/RfC WORK GROUP

010919 US EPA. 1991. RfD/RfC WORK GROUP.

TRICHLOROPHENOL, 2,4,6- 000088-06-2

010461 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1991. RfD/RfC WORK GROUP.

TRICHLOROPHENOL, 3,4,5- 000609-19-8

005333 US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENT ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRICHLOROPHENOXY) PROPIONIC ACID, 2(2,4,5- 000093-72-1

010284 GEHRING PJ AND JE BETSO 1978 PHENOXY ACIDS: EFFECTS AND FATE IN MAMMALS IN. CHLORINATED PHENOXY ACIDS AND THEIR DIOXINS.VOL 27 C RAMEL ED ECOL BULL, STOCKHOLM. P. 122-133

MULLISON WR 1966. SOME TOXICOLOGICAL ASPECTS OF SILVEX IN: PROC 19TH ANN MEET SOUTHERN WEED CONFERENCE, JACKSONVILLE, FL. P 420-435.

US EPA. 1988 RfD/RfC WORK GROUP

TRICHLOROPHENOXYACETIC ACID, 2,4,5- 000093-76-5

010178 KOCIBA, RS, DG KEYES, RW LISOWE, ET AL 1979. RESULTS OF 2-YEAR CHRONIC TOXICITY AND ONCOGENICITY STUDY OF RATS INGESTING DIETS CONTAINING 2,4,5-T. FOOD COSMET TOXICOL. 17: 205 -222.

SMITH FA, FJ MURRAY, JA JOHN, ET AL. 1981 THREE-GENERATION REPRODUCTION STUDY OF RATS INGESTING 2,4,5-TRICHLOROPHENOXYACETIC ACID IN THE DIET TOXICO RES LAB., DOW CHEMICAL, MIDLAND, MI.

US EPA. 1989. HEALTH EFFECTS ASSESSMENT FOR 2,4,5-TRICHLOROPHENOXY ACETIC ACID PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1988 RfD/RfC WORK GROUP

010179 GEHRING, PJ, AND JE BETSO. 1978 PHENOXY ACIDS. EFFECTS AND FATE IN MAMMALS. ECO BULL 27 122-123

US EPA 1989 HEALTH EFFECTS ASSESSMENT FOR 2,4,5-TRICHLOROPHENOXY ACETIC ACID PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

TRICHLOROPROPANE, 1,1,1- 007789-89-1

005705 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRICHLOROPROPANES. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRICHLOROPROPANE, 1,1,2- 000598-77-6

005708 VILLANEUVE, DC, I CHU, VE SECOURS, MG COTIE, GL PLAA AND VE VALLI 1985 RESULTS OF A 90-DAY TOXICITY STUDY ON 1,2,3- AND 1,1,2-TRICHLOROPROPANE ADMINISTERED VIA THE DRINKING WATER SCI TOTAL ENVIRON 47· 421-426

US EPA. 1987. RfD/RfC WORK GROUP.

TRICHLOROPROPANE, 1,2,2- 003175-23-3

005706 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRICHLOROPROPANES ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRICHLOROPROPANE, 1,2,3- **000096-18-4**

005714 NTP (NATIONAL TOXICOLOGY PROGRAM). 1983 FINAL REPORT 120-DAY TOXICITY GAVAGE STUDY OF 1,2,3-TRICHLOROPROPANE IN FISCHER 344 RATS. PERFORMED BY HAZELTON LABORATORIES.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRICHLOROPROPANES ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1986 RfD/RfC WORK GROUP

TRICHLOROPROPENE, 1,2,3- **000096-19-5**

010078 MCKENNA MJ, JF QUAST AND GA STEVENS. 1978. RESULTS OF A90-DAY INHALATION TOXICITY STUDY OF 1,2,3-TRICHLOROPROPENE IN LABORATORY ANIMALS TOXICOL APPL PHARMACOL. 45: 249.

US EPA. 1983 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROPROPENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

TRICHLOROTOLUENE, 2,3,6- **002077-46-5**

005335 CHU I, SY SHEN, DC VILLENEUVE, VE SECOURS AND VE VALLI 1984. TOXICITY OF TRICHLOROTOLUENE ISOMERS. A 28-DAY FEEDING STUDY IN THE RAT J ENVIRON SCI HEALTH PART B PESTIC FOOD CONTAM AGRIC WASTES. 19(2): 183-192

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED TOLUENES. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRICHLOROTOLUENE, ALPHA,2,6- **002014-83-7**

005339 CHU I, SY SHEN, DC VILLENEUVE, VE SECOURS AND VE VALLI 1984 TOXICITY OF TRICHLOROTOLUENE ISOMERS. A 28-DAY FEEDING STUDY IN THE RAT. J ENVIRON SCI HEALTH PART B PESTIC FOOD CONTAM AGRIC WASTES 19(2): 183-192

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED TOLUENES ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TRIFLURALIN 001582-09-8

010080 HOECHST AKTIENGESELLSCHAFT 1984. CONFIDENTIAL BUSINESS INFORMATION. UNPUBLISHED STUDY MRID NO 00151908 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TRIFLURALIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

US EPA 1989 RfD/RfC WORK GROUP.

US EPA. 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR TRIFLURALIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

TRIMETHYLBENZENES

005727 US EPA. 1987 HEALTH AND ENVIRONMENTAL ASSESSMENT FOR TRIMETHYLBENZENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENT ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

TRINITROBENZENE, 1,3,5- 000099-35-4

010081 CODY TE, S WITHERUP, L HASTINGS, K STEMMER AND RT CHUSTION. 1981 1,3-DINITROBENZENE: TOXIC EFFECTS IN VITRO. J TOXICOL ENVIRON HEALTH. 7: 829-847

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,3,5-TRINITROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 RfD/RfC WORK GROUP.

TRINITROPHENOLS

010082 US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TRINITROPHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

TRINITROPHENYLMETHYLNITRAMINE 000479-45-8

010377 FATI S, E DANIELE. 1965 HISTOPATHOLOGICAL CHANGES IN EXPERIMENTAL CHRONIC TETRYL POISONING. FOLIA MED 48(4) 260-276.

US EPA 1990. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRINITROPHENYLMETHYLNITRAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRINITROTOLUENE, 2,4,6- **000118-96-7**

010416 US DOD (DEPARTMENT OF DEFENSE) 1983. AD-A157-002. DEFENSE TECHNICAL CENTER, CAMERON STATION, ALEXANDRIA, VA

US EPA 1990. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2,4,6-TRINITROTOLUENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

US EPA 1988. RfD/RfC WORK GROUP

VANADIUM **007440-62-2**

005739 SCHROEDER, HA, M MITCHENER AND AP NASON 1970. ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS LIFE-TIME STUDIES J NUTR 100: 59-69

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR VANADIUM AND COMPOUNDS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

VANADIUM PENTOXIDE **001314-62-1**

005743 STOKINGER, HE, WD WAGNER, JT MOUNTAIN ET AL 1953. UNPUBLISHED RESULTS. DIV OCCUP HEALTH, CINCINNATI, OH CITED IN STOKINGER, 1981

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR VANADIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986. RfD/RfC WORK GROUP.

VANADIUM SULFATE **036907-42-3**

005747 SCHROEDER, HA, M MITCHENER AND AP NASON. 1970 ZIRCONIUM, NIOBIUM, ANTIMONY AND LEAD IN RATS LIFE-TIME STUDIES. J NUTR 100 59-69

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR VANADIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

VERNAM / (VERNOLATE) **001929-77-7**

010083 STAUFFER CHEMICAL COMPANY 1983 CONFIDENTIAL BUSINESS INFORMATION, UNPUBLISHED STUDY ACCESSION NOS 249703-249704

US EPA. 1983. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR VERNOLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1986. RfD/RfC WORK GROUP

VINYL ACETATE 000108-05-4

010417 SHAW DC. 1988. VINYL ACETATE: 104-WEEK ORAL (DRINKING WATER) COMBINED CHRONIC TOXICITY AND CARCINOGENICITY STUDY IN THE RAT FOLLOWING IN VITRO EXPOSURE. VOLUME I. HAZELETON LABORATORIES, UK. REPORT NO. 5531-5/16 EPA DOC. NO. 86-0000265. FICHE NO OTS0514156

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR VINYL ACETATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

010418 OWEN, PE. 1988. VINYL ACETATE 104 WEEK INHALATION COMBINED CHRONIC TOXICITY AND CARCINOGENICITY STUDY IN THE RAT AND MOUSE. REPORT PREPARED BY HAZELTON LABORATORIES EUROPE, LTD , HARROGATE, ENGLAND FOR THE SOCIETY OF THE PLASTICS INDUSTRY, INC , NEW YORK REPORT NO. 5547-51/15. NOVEMBER, 1988

BEEMS, RB 1988. REPORT NO V88-133· HISTOPATHOLOGY OF THE RESPIRATORY TRACT OF MICE USED IN A 104-WEEK INHALATION STUDY (OWEN, 1988) WITH VINYL ACETATE (TNO-CIVO INSTITUTES, APRIL, 1988)

DREEF, VAN DER MEULEN, HC 1988. REPORT NO V88, 033/270836: HISTOPATHOLOGY OF THE RESPIRATORY TRACT OF RATS USED IN A 104 WEEK INHALATION STUDY (OWEN, 1988) WITH VINYL ACETATE: REVISED VERSION (TNO-CIVO INSTITUTES, OCTOBER, 1988).

US EPA 1990. RfD/RfC WORK GROUP

VINYL-1-CYCLOHEXENE, 4- 000100-40-3

010084 US EPA. 1983 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 4-VINYL-1-CYCLOHEXENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

WARFARIN 000081-81-2

010409 HUFF, BB, ED 1985. PHYSICIANS DESK REFERENCE, 39TH ED MEDICAL ECONOMICS CO , INC., ORADELL, NJ

US EPA 1986 RfD/RfC WORK GROUP.

XYLENE, M- 000108-38-3

005755 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS OF XYLENES (MIXED) (60 2%M-XYLENE, 13.6% P-XYLENE, 17 0% ETHYLBENZENE AND 9 1% O-XYLENE) (CAS NO. 1330-20-7) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) US DHHS, PHS, NIH, NTP, RESEARCH TRIANGLE PARK, NC, NTP TR 327, NIH PUBL NO 86-2583

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR XYLENES (O-, M-, P-) ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

010920 US EPA 1991. RfD/RfC WORK GROUP

XYLENE, MIXTURE **001330-20-7**

010872 NTP (NATIONAL TOXICOLOGY PROGRAM) 1986 NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS OF XYLENES (MIXED) (60.2%M-XYLENE, 13 6% P-XYLENE, 17 0% ETHYLBENZENE AND 9 1% O-XYLENE) (CAS NO 1330-20-7) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). US DHHS, PHS, NIH, NTP, RESEARCH TRIANGLE PARK, NC, NTP TR 327, NIH PUBL NO 86-2583

US EPA. 1989 UPDATED HEALTH EFFECTS ASSESSMENT FOR XYLENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1987. RfD WORK GROUP.

010921 US EPA 1991 RfD/RfC WORK GROUP

XYLENE, O- **000095-47-6**

005751 NTP (NATIONAL TOXICOLOGY PROGRAM) 1986 NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS OF XYLENES (MIXED) (60.2% M-XYLENE, 13 6% P-XYLENE, 17.0% ETHYLBENZENE AND 9 1% O-XYLENE) (CAS NO 1330-20-7) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) US DHHS, PHS, NIH, NTP, RESEARCH TRIANGLE PARK, NC, NTP TR 327, NIH PUBL NO 86-2583.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR XYLENES (O-, M-, P-) ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

010922 US EPA 1991. RfD/RfC WORK GROUP.

XYLENE, P- **000106-42-3**

010923 US EPA 1991 RfD/RfC WORK GROUP.

ZINC (METALLIC) **007440-66-6**

010937 YADRICK, MF, MA KENNEY AND EA WINTERFELDT 1989. IRON, COPPER AND ZINC STATUS RESPONSE TO SUPPLEMENTATION WITH ZINC OR ZINC AND IRON IN ADULT FEMALES. AM J CLIN NUTR 49 145-150

US EPA 1991 RfD/RfC WORK GROUP

ZINC CYANIDE **000557-21-1**

010289 HOWARD JW AND RF HANZAL. 1955 CHRONIC TOXICITY FOR RATS OF FOOD TREATED WITH HYDROGEN CYANIDE AGRIC FOOD CHEM. 3. 325-329.

PHILBRICK DJ, JB HOPKINS, DC HILL, JC ALEXANDER AND RG THOMSON. 1979. EFFECTS OF PROLONGED CYANIDE AND THIOCYANATE FEEDING IN RATS J TOXICOL ENVIRON HEALTH 5· 579-592

US EPA 1985. RfD/RfC WORK GROUP.

ZINC PHOSPHIDE 001314-84-7

010290 BAI KM, MK KRISHNAKUMARI, JP RAMESH, T SHIVANANDAPPA AND SK MAJUNDER 1980. SHORT-TERM TOXICITY STUDY OF ZINC PHOSPHIDE IN ALBINO RATS INDIAN J EXPTL BIOL. 18: 854-857.

US EPA. 1986 RfD/RfC WORK GROUP.

ZINEB 012122-67-7

010085 BLACKWELL-SMITH RJ JR, JK FINNEGAN, PS LARSON, ET AL. 1953 TOXICOLOGIC STUDIES ON ZINC AND DISODIUM ETHYLENE BISDITHIOCARBAMATES. J PHARMACOL EXP THER 109 159-166

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ZINEB. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA 1986 RfD/RfC WORK GROUP

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
ACETONE CYANOHYDRIN		**000075-86-5**							
NOEL	4 0 MG/KG/DAY	RAT							
	INHALATION:	14 WEEKS	CENTRAL NERVOUS	EFFECTS	1E-1		1E-2		010432
	INTERMITTENT		SYSTEM		100		1000		

SUBCHRONIC [RfC] COMMENT: 4E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST). AN ERROR IN THE UNCERTAINTY FACTOR THAT WAS REPORTED IN HEED (1988) WAS CORRECTED.
CHRONIC [RfC] COMMENT 4E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)
GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY.

ACETONITRILE		**000075-05-8**							
NOAEL	100 PPM	MOUSE							
	INHALATION	92 DAYS	LIVER	INCREASED RELATIVE WEIGHT	5E-1		5E-2		005208
	INTERMITTENT				300		3000		

SUBCHRONIC [RfC] COMMENT: 1E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).
CHRONIC [RfC] COMMENT. 1E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST). UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE.
GENERAL COMMENT. THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY.

BARIUM		**007440-39-3**							
NOEL	0.8 MG/CU M	RAT							
	INHALATION,	4 MONTHS	FETUS	FETOTOXICITY	5E-3		5E-4		005249
	INTERMITTENT				100		1000		

SUBCHRONIC [RfC] COMMENT: 1E-3 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST) BASED ON A REPRODUCTION STUDY
CHRONIC [RfC] COMMENT: 1E-4 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST). BASED ON A REPRODUCTION STUDY
GENERAL COMMENT THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
CHLORO-1,3-BUTADIENE / (CHLOROPRENE)		**000126-99-8**							
NOAEL 10 PPM		RAT							
	INHALATION·	2 YEARS	HAIR	ALOPECIA		2E-2		2E-2	005878
	INTERMITTENT		WHOLE BODY	DECREASED WEIGHT GAIN		100		100	
SUBCHRONIC [RfD] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION ASSUMING AN INHALATION ABSORPTION FACTOR OF 0.5.									
CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION ASSUMING AN INHALATION ABSORPTION FACTOR OF 0 5.									
GENERAL COMMENT: SEE ALSO HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
CHLOROBENZENE		**000108-90-7**							
LOAEL 75 PPM		RAT							
	INHALATION.	120 DAYS	LIVER	EFFECTS			2E-2		005353
	INTERMITTENT		KIDNEY	EFFECTS			10000 -		
CHRONIC [RfC] COMMENT 5E-3 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST). UNDER REVIEW, CURRENT NUMBER SUBJECT TO CHANGE.									
GENERAL COMMENT· THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY.									
CYCLOPENTADIENE		**000542-92-7**							
NOEL 87 3 MG/KG/DAY		RAT							
	INHALATION	194 DAYS	LIVER	LESIONS		3E+0			005401
	INTERMITTENT		KIDNEY	LESIONS		100			
SUBCHRONIC [RfC] COMMENT: 9E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)									
GENERAL COMMENT THE SUBCHRONIC INHALATION [RfC] VALUE WAS DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP.									

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICHLOROBENZENE, 1,2-		**000095-50-1**							
NOEL 49 PPM		RAT							
	INHALATION: INTERMITTENT	UP TO 7 MONTHS	WHOLE BODY	DECREASED WEIGHT GAIN	2E+0 100		2E-1 1000		005412
CHRONIC [RfC] COMMENT. 4E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)									
GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY									
DICHLORODIFLUOROMETHANE		**000075-71-8**							
LOAEL 482.3 MG/KG/DAY		GUINEA PIG							
	INHALATION INTERMITTENT	6 WEEKS	LIVER	LESIONS	2E+0 1000		2E-1 10000		005497
SUBCHRONIC [RfC] COMMENT: 5E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)									
CHRONIC [RfC] COMMENT 5E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)									
GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY									
DICHLOROETHANE, 1,1-		**000075-34-3**							
NOEL 138 MG/KG/DAY		CAT							
	INHALATION INTERMITTENT	13 WEEKS	KIDNEY	DAMAGE	5E+0 100		5E-1 1000		005789
SUBCHRONIC [RfC] COMMENT: 1E+0 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).									
CHRONIC [RfC] COMMENT 1E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).									
GENERAL COMMENT THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE HEAST TABLE 1. CHRONIC AND SUBCHRONIC TOXICITY AND									

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
DICYCLOPENTADIENE		**000077-73-6**							
LOAEL 1 PPM		RAT							
	INHALATION:	90 DAYS	KIDNEY	DYSFUNCTION	2E-3		2E-4		005424
	INTERMITTENT				1000		10000		

SUBCHRONIC [RfC] COMMENT: 6E-4 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)
CHRONIC [RfC] COMMENT. 6E-5 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)
GENERAL COMMENT THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1, SUBCHRONIC AND CHRONIC TOXICITY.

ETHOXYETHANOL ACETATE, 2-		**000111-15-9**							
NOEL 30.1 MG/KG/DAY		RAT							
	INHALATION·	DAY 6-18 OF	FETUS	DECREASED OSSIFICATION		3E-1		3E-1	005952
	INTERMITTENT	GESTATION				100		100	

SUBCHRONIC [RfD] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION. THE SUBCHRONIC ORAL [RfD]WAS BASED ON A REPRODUCTION STUDY WITH EXPOSURES DURING DAYS 6-18 OF GESTATION.
CHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION. THE CHRONIC ORAL [RfD] WAS BASED ON A REPRODUCTION STUDY WITH EXPOSURES DURING DAYS 6-18 OF GESTATION
GENERAL COMMENT· NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES ALSO SEE TABLE
1: SUBCHRONIC AND CHRONIC TOXICITY VALUES.

FURFURAL		**000098-01-1**							
NOAEL 20 PPM		HAMSTER							
	INHALATION·	13 WEEKS	NASAL CAVITY	OLFACTORY DEGENERATION	5E-1		5E-2		005465
	INTERMITTENT				100		1000		

SUBCHRONIC [RfC] COMMENT: 1E-1 MG/KG/DAY (SEE APPENDIX A-11, DOSE CONVERSIONS ON HEAST)
CHRONIC [RfC] COMMENT. 1E-2 MG/KG/DAY (SEE APPENDIX A-11, DOSE CONVERSIONS ON HEAST).
GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP ALSO SEE TABLE 1, SUBCHRONIC AND CHRONIC TOXICITY.

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHACRYLONITRILE		**000126-98-7**							
NOEL 3.2 PPM		DOG							
	INHALATION:	90 DAYS	LIVER	INCREASED SGOT	7E-3		7E-4		005811
	INTERMITTENT		LIVER	INCREASED SGPT	300		3000		

SUBCHRONIC [RfC] COMMENT: 2E-3 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST). THESE VALUES DIFFER FROM THOSE IN THE 1987 HEED

CHRONIC [RfC] COMMENT 2E-4 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST) THESE VALUES DIFFER FROM THOSE IN THE 1987 HEED.

GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY.

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHOXYETHANOL ACETATE, 2-		**000110-49-6**					
NOAEL 10 PPM		RABBIT					
	INHALATION	13 WEEKS	TESTIS	DEGENERATION	2E-2	2E-3	010001
	INTERMITTENT				100	1000	

SUBCHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0.5. CALCULATED FROM DATA OBTAINED WITH METHOXYETHANOL CONVERTED BY MULTIPLYING BY THE MOLECULAR WEIGHT RATIO (118.13/76.09).

CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0.5. CALCULATED FROM DATA OBTAINED WITH METHOXYETHANOL CONVERTED BY MULTIPLYING BY THE MOLECULAR WEIGHT RATIO (118.13/76 09)

GENERAL COMMENT: NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHOXYETHANOL, 2-		**000109-86-4**					
NOAEL 31 MG/CU M		RABBIT					
	INHALATION.	13 WEEKS	TESTICLE	EFFECTS	1E-2	1E-3	010910
	INTERMITTENT				100	1000	

SUBCHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION

CHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION

GENERAL COMMENT: ALSO SEE TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL ACRYLATE		**000096-33-3**							
NOEL	15 PPM	RAT							
	INHALATION:	2 YEARS		NONE OBSERVED		3E-2		3E-2	010003
	INTERMITTENT					100		100	

SUBCHRONIC [RfD] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION.
CHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION.
GENERAL COMMENT: NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES.

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL ISOBUTYL KETONE		**000108-10-1**							
NOEL	50 PPM	RAT							
	INHALATION.	90 DAYS	LIVER	INCREASED WEIGHT	8E-1		8E-2		005562
	INTERMITTENT		KIDNEY	EFFECTS	100		1000		

SUBCHRONIC [RfC] COMMENT· 2E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSION ON HEAST).
CHRONIC [RfC] COMMENT. 2E-2 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSION ON HEAST).
GENERAL COMMENT. THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY.

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYL STYRENE (MIXED ISOMERS) 025013-15-4									
LOAEL 5 6 MG/KG/DAY		MOUSE							
	INHALATION:	103 WEEKS	NASAL CAVITY	LESIONS		6E-3		6E-3	005567
	INTERMITTENT					1000		1000	
SUBCHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION WITH AN ABSORPTION FACTOR OF 0.5									
CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION WITH AN ABSORPTION FACTOR OF 0.5.									
GENERAL COMMENT: NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES.									
LOAEL 11 2 MG/KG/DAY		MOUSE							
	INHALATION.	103 WEEKS	NASAL CAVITY	LESIONS	4E-2		4E-2		005566
	INTERMITTENT				1000		1000		
SUBCHRONIC [RfC] COMMENT: 1E-2 MG/KG/DAY (SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST)									
CHRONIC [RfC] COMMENT 1E-2 MG/KG/DAY (SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST).									
GENERAL COMMENT. THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP.									
METHYL STYRENE, ALPHA 000098-83-9									
NOEL 970 MG/CU M		RAT							
	INHALATION:	197 DAYS	LIVER	INCREASED WEIGHT		7E-1		7E-2	010016
	INTERMITTENT		KIDNEY	INCREASED WEIGHT		100		1000	
SUBCHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5.									
CHRONIC [RfD] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION USING AN ABSORPTION FACTOR OF 0 5									
GENERAL COMMENT. NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES.									

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT / LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) UF	Subchronic [RfD] (mg/kg/day) UF	Chronic [RfC] (mg/cu m) UF	Chronic [RfD] (mg/kg/day) UF	REFERENCE
METHYLENE BROMIDE		**000074-95-3**							
NOAEL 11 MG/KG/DAY		RAT							
	INHALATION:	90 DAYS	BLOOD	INCREASED CARBOXYHEMOGLOBIN		1E-1		1E-2	010011
	INTERMITTENT					100		1000	
SUBCHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION, INCLUDING AN ABSORPTION FACTOR OF 0.5.									
CHRONIC [RfD] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION, INCLUDING AN ABSORPTION FACTOR OF 0.5.									
GENERAL COMMENT: NO PHARMACOKINETIC DATA WERE PROVIDED TO JUSTIFY ROUTE TO ROUTE EXTRAPOLATION FOR THE ORAL [RfD] VALUES.									
NITROBENZENE		**000098-95-3**							
LOAEL 25 MG/CU M		MOUSE							
	INHALATION:	90 DAYS	BLOOD	HEMATOLOGICAL EFFECTS	2E-2		2E-3		010518
	INTERMITTENT		ADRENAL	LESIONS	1000		10000		
			KIDNEY	LESIONS					
			LIVER	LESIONS					
		RAT							
	INHALATION.	90 DAYS	BLOOD	HEMATOLOGICAL EFFECTS					
	INTERMITTENT		ADRENAL	LESIONS					
			KIDNEY	LESIONS					
			LIVER	LESIONS					
SUBCHRONIC [RfC] COMMENT. 6E-3 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST)									
CHRONIC [RfC] COMMENT: 6E-4 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).									
GENERAL COMMENT: THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY									
TRICHLOROBENZENE, 1,2,4-		**000120-82-1**							
GENERAL COMMENT· INFORMATION REMOVED FROM THIS TABLE SEE TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									

HEAST TABLE 2: ALTERNATE METHODS - SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

CHEMICAL / LEVEL	DOSE / ROUTE	SPECIES / EXPERIMENT LENGTH	TARGET	CRITICAL EFFECT	Subchronic [RfC] (mg/cu m) / UF	Subchronic [RfD] (mg/kg/day) / UF	Chronic [RfC] (mg/cu m) / UF	Chronic [RfD] (mg/kg/day) / UF	REFERENCE
TRICHLOROFLUOROMETHANE		**000075-69-4**							
LOAEL 1940 MG/KG/DAY		DOG							
	INHALATION·	90 DAYS	KIDNEY	INCREASED BUN	7E+0		7E-1		005501
	CONTINUOUS		LUNG	INFLAMMATION	1000		10000		

SUBCHRONIC [RfC] COMMENT: 2E+0 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).
CHRONIC [RfC] COMMENT. 2E-1 MG/KG/DAY (SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST).
GENERAL COMMENT· THE SUBCHRONIC AND CHRONIC INHALATION [RfC] VALUES WERE DERIVED FROM METHODOLOGY THAT IS NOT CURRENT WITH THE INTERIM INHALATION METHODOLOGY USED BY THE RfD/RfC WORK GROUP. ALSO SEE TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY

REFERENCES FOR HEAST TABLE 2: ALTERNATE METHODS -- SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)

July 1997

ACETONE CYANOHYDRIN 000075-86-5

010432 BLANK TL AND DC THAKE. 1984. THREE-MONTH INHALATION TOXICITY OF ACETONE CYANOHYDRIN IN MALE AND FEMALE SPRAGUE-DAWLEY RATS. MONSANTO REPORT NOP. MSL-4423. TSCA 8(D) SUBMISSION 878216397 (OTS 0510325).

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYANOHYDRINS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ACETONITRILE 000075-05-8

005208 COATE WB. 1983 90-DAY SUBCHRONIC TOXICITY STUDY OF ACETONITRILE IN B6C3F1 MICE. FINAL REPORT (REVISED)

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR ACETONITRILE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

BARIUM 007440-39-3

005249 TARASENKO M, O PROMIN AND A SILAYEV 1977. BARIUM COMPOUNDS AS INDUSTRIAL POISONS (AN EXPERIMENTAL STUDY). J HYG EPIDEM MICROBIOL IMMUNOL. *21*: 361.

US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR BARIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

CHLORO-1,3-BUTADIENE / (CHLOROPRENE) 000126-99-8

005878 DU PONT DE NEMOURS AND COMPANY, INC. 1985. 2-YEAR INHALATION CARCINOGENICITY STUDY OF CHLOROPRENE IN RATS. EI DU PONT DE NEMOURS AND CO., INC., WILMINGTON, DE.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2-CHLORO-1,3-BUTADIENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROBENZENE 000108-90-7

005353 DILLEY, JV 1977. TOXIC EVALUATION OF INHALED CHLOROBENZENE. NIOSH, DHEW, CINCINNATI, OH, CONTRACT 210-76-0126. CITED IN US EPA, 1985.

US EPA. 1989. UPDATED HEALTH EFFECTS ASSESSMENT FOR CHLOROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

CYCLOPENTADIENE 000542-92-7

005401 DOW. 1987 UNPUBLISHED DATA. DOW CHEMICAL, USA, MIDLAND, MI.

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOPENTADIENE AND DICYCLOPENTADIENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DICHLOROBENZENE, 1,2- **000095-50-1**

005412 HOLLINGSWORTH RL, VK ROWE, F OYEN, TR TORKELSON AND EM ADAMS 1958. TOXICITY OF O-DICHLOROBENZENE AM MED ASSOC ARCH IND HEALTH. 17(1): 180-187.

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR DICHLOROBENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

DICHLORODIFLUOROMETHANE **000075-71-8**

005497 PRENDERGAST JA, RA JONES, LJ JENKINS AND J SIEGAL 1967 EFFECTS ON EXPERIMENTAL ANIMALS OF LONG-TERM INHALATION OF TRICHLOROETHYLENE, CARBON TETRACHLORIDE, 1,1,1-TRICHLOROETHANE, DICHLORODIFLUOROMETHANE AND 1,1-DICHLOROETHYLENE. TOXICOL APPL PHARMACOL. 10 270-289

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

DICHLOROETHANE, 1,1- **000075-34-3**

005789 HOFMANN HT, H BIRNSTIEL AND P JOBST. 1971 ON THE INHALATION TOXICITY OF 1,1- AND 1,2-DICHLOROETHANE. ARCH TOXIKOL 27. 248-265

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR 1,1-DICHLOROETHANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

DICYCLOPENTADIENE **000077-73-6**

005424 DODD DE, LC LONGO AND DL EISLER. 1982 DICYCLOPENTADIENE VAPOR NINETY-DAY INHALATION STUDY ON RATS AND MICE BUSHY RUN RESEARCH CENTER, EXPORT, PA, TSCA 8E SUBMISSION BY EXXON CHEM AMER DOC ID 88-8300464, ODD DOC ID 8EHQ-0283-0364,MICROFICHE NO OTS 204864

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CYCLOPENTADIENE AND DICYCLOPENTADIENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

ETHOXYETHANOL ACETATE, 2- **000111-15-9**

005952 UNION CARBIDE 1984 A TERATOGENIC EVALUATION OF CELLOSOLVE ACETATE IN FISHER 344 RATS AND NEW ZEALAND WHITE RABBITS FOLLOWING INHALATION EXPOSURE. BUSHY RUN RESEARCH CENTER, EXPORT, PA, OCTOBER 1984 FYI-AX-1184-0360

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2- ETHOXYETHANOL ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

FURFURAL 000098-01-1

005465 FERON VJ, A KRUYSSE AND HC DREEF VANDER MEULEN. 1979. REPEATED EXPOSURE TO FURFURAL VAPOR· 13 WEEK STUDY IN SYRIAN GOLDEN HAMSTERS. ZENTRASE. BAKTEVIOL PAVASITEN KD INFECTION SKV HYG ABT 1 ORIG REIHE B. 168(5-6): 442-451.

US EPA. 1988. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR FURFURAL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON,DC

METHACRYLONITRILE 000126-98-7

005811 POZZANI, UC, CR KINKEAD AND JM KING. 1968 THE MAMMALIAN TOXICITY OF METHACRYLONITRILE AM IND HYG ASSOC J. 29(3): 202-210.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITRILES, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHOXYETHANOL ACETATE, 2- 000110-49-6

010001 MILLER RR, LL CALHOUN AND BL YANO. 1982. ETHYLENE GLYCOL MONOMETHYL ETHER: 13-WEEK VAPOR INHALATION STUDY IN MALE RABBITS REPORT PREPARED FOR THE CHEMICAL MANUFACTURERS ASSOCIATION, MARCH 25, 1982.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2- METHOXYETHANOL ACETATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, OC

METHOXYETHANOL, 2- 000109-86-4

010910 MILLER RR, LL CALHOUN, BL YANO 1982. ETHYLENE GLYCOL MONOETHYL ETHER: 13 WEEK VAPOR INHALATION STUDY IN MALE RABBITS. REPORT PREPARED FOR THE CMA MARCH 25, 1982.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHOXYETHANOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYL ACRYLATE 000096-33-3

010003 KLIMISCH HJ AND W REININGHAUS 1984 CARCINOGENICITY OF ACRYLATES LONG-TERM INHALATION STUDIES ON METHYL ACRYLATE (MA) AND N-BUTYL ACRYLATE (BA) IN RATS. TOXICOLOGIST. 4(1) 53

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL ACRYLATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYL ISOBUTYL KETONE 000108-10-1

005562 UNION CARBIDE CORP. 1983 NINETY-DAY INHALATION STUDY IN RATS AND MICE SPONSORED BY CMA US EPA/OTS PUBLIC FILES 0750507469.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR METHYL ETHYL KETONE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE,CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

METHYL STYRENE (MIXED ISOMERS) 025013-15-4

005567 MRI (MIDWEST RESEARCH INSTITUTE) 1984. STUDY OF THE INHALATION CARCINOGENICITY (BIOASSAY) OF VINYL TOLUENE IN B6C3F1 MICE

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHYL STYRENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

005566 FINAL CHRONIC REPORT PERFORMED FOR THE NTP UNDER CONTRACT NO N01-ES-38042.

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR METHYL STYRENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYL STYRENE, ALPHA 000098-83-9

010016 WOLF MA, VK ROWE, DD MCCOLLISTER, ET AL 1956 TOXICOLOGICAL STUDIES OF CERTAIN ALKYLATED BENZENES AND BENZENE ARCH IND HEALTH 14: 387-398.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALPHA- METHYL STYRENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYLENE BROMIDE 000074-95-3

010011 KEYES DG, JW HENCK, GC JERSEY, RJ KOCIBA, DJ SCHWETZ AND TD LANDRY 1982 METHYLENE BROMIDE: A 90-DAY REPEATED INHALATION TOXICITY STUDY IN RATS AND DOGS WITH A SUBSEQUENT TWO-YEAR HOLDING PERIOD FOR RATS. TOXICOLOGY RESEARCH LAB, HEALTH AND ENVIRONMENTAL SCIENCES, DOW CHEMICAL CO , MIDLAND, MI.

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYLENE BROMIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITROBENZENE **000098-95-3**

010518 CIIT (CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY) 1984. NINETY- DAY INHALATION STUDY OF NITROBENZENE IN F-344 RATS,CD RATS AND B6C3F1 MICE WITH COVER LETTER DATED 6/24/84 AND EPA RESPONSE DATED 8/06/84. UNPUBLISHED STUDY. FYI-OTS-0784-0333 AND COMPUTER PRINT-OUT OF PATHOLOGY FINDING.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR NITROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

TRICHLOROFLUOROMETHANE **000075-69-4**

005501 JENKINS, LJ, RA JONES, RA COON AND J SIEGAL 1970. REPEATED AND CONTINUOUS EXPOSURES OF LABORATORY ANIMALS TO TRICHLOROFLUORMETHANE. TOXICOL APPL PHARMACOL. 16: 133-142

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR FULLY HALOGENATED METHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
ACEPHATE		**030560-19-1**								
					IRIS	IRIS		IRIS		010086
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
ACROLEIN		**000107-02-8**								
					IRIS					005001
	GENERAL COMMENT ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
ACRYLAMIDE		**000079-06-1**								
	ORAL: DRINKING WATER	2 YEARS RAT	MAMMARY	TUMORS	IRIS	IRIS	4.5E+0	IRIS	IRIS	010087
			THYROID	TUMORS						
			UTERUS	TUMORS						
			ORAL CAVITY	TUMORS						
			CENTRAL NERVOUS SYSTEM	TUMORS						
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
ACRYLONITRILE		**000107-13-1**								
					IRIS	IRIS		IRIS		005004
	INHALATION: OCCUPATIONAL	HUMAN	LUNG	TUMORS	IRIS		2 4E-1		IRIS	005003
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
ALACHLOR		**015972-60-8**								
	ORAL: DIET	MULTIPLE SITES	TUMORS		B2	8E-2		2.3E-6		010180
	ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
ALDRIN		**000309-00-2**								
	ORAL: DIET				IRIS	IRIS	1.7E+1	IRIS	IRIS	005006
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	INHALATION [UNIT RISK] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION.									
	GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
ALLYL CHLORIDE		**000107-05-1**								
					IRIS					010181
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
ANILINE		**000062-53-3**								
					IRIS	IRIS		IRIS		010088
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
ARAMITE		**000140-57-8**								
	ORAL: DIET	104 WKS			IRIS	IRIS	2.5E-2	IRIS	IRIS	010206
		RAT	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
ARSENIC, INORGANIC		**007440-38-2**								
						IRIS		IRIS		010925
	INHALATION:				IRIS		IRIS		IRIS	005007
	OCCUPATIONAL	HUMAN	RESPIRATORY SYSTEM	TUMORS						
	GENERAL COMMENT: ALSO SEE HEAST TABLE I: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
ASBESTOS		**001332-21-4**								
					IRIS					005010
					IRIS				IRIS	005919
ATRAZINE		**001912-24-9**								
	ORAL: DIET	2 YEARS RAT	MAMMARY GLAND	ADENOMA	C	2.22E-1		6.3E-6		010380
			MAMMARY GLAND	FIBROADENOMA						
			MAMMARY GLAND	ADENOCARCINOMA						
			MAMMARY GLAND	CARCINOSARCOMA						
	ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
AZOBENZENE		**000103-33-3**								
	ORAL DIET	2 YEARS RAT	ABDOMINAL CAVITY	SARCOMA	IRIS	IRIS	1 1E-1	IRIS	IRIS	010089
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									

HEAST TABLE 3: CARCINOGENICITY

July 1997

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
BENZENE		**000071-43-2**								
	INHALATION: OCCUPATIONAL	HUMAN	BLOOD	LEUKEMIA	IRIS	IRIS	2.9E-2	IRIS	IRIS	005011
	ORAL [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST. GENERAL COMMENT. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
BENZIDINE		**000092-87-5**								
					IRIS	IRIS	IRIS	IRIS	IRIS	005014
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
BENZOTRICHLORIDE		**000098-07-7**								
					IRIS	IRIS		IRIS		010092
BENZO[A]ANTHRACENE		**000056-55-3**								
					IRIS					010182
BENZO[A]PYRENE		**000050-32-8**								
					IRIS	IRIS		IRIS		010508
BENZO[B]FLUORANTHENE		**000205-99-2**								
					IRIS					010183
BENZO[K]FLUORANTHENE		**000207-08-9**								
					IRIS					010090
BENZYL CHLORIDE		**000100-44-7**								
					IRIS	IRIS		IRIS		010093

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
BERYLLIUM		**007440-41-7**								
					IRIS	IRIS		IRIS		005018
	GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
	INHALATION:				IRIS		8.4E+0		IRIS	005017
	OCCUPATIONAL	HUMAN	LUNG	TUMORS						
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
BIS(2-CHLOROETHYL) ETHER		**000111-44-4**								
	ORAL	560 DAYS			IRIS	IRIS	1.1E+0	IRIS	IRIS	005076
		MOUSE	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT: _BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
BIS(2-CHLORO-1-METHYLETHYL) ETHER		**000108-60-1**								
	ORAL GAVAGE	2 YEARS			C	7E-2	3.5E-2	2E-6	1E-5	005079
		MOUSE	LIVER	TUMORS						
			LUNG	TUMORS						
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION (50% RESPIRATORY ABSORPTION) SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT. COMPOUND TESTED CONTAINED 70% BIS(2-CHLORO-1-METHYLETHYL)ETHER AND 30% BIS(2-CHLOROISOPROPYL)ETHER ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
BIS(2-ETHYLHEXYL) PHTHALATE / (DEHP)		**000117-81-7**								
					IRIS	IRIS		IRIS		005120
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
BIS(CHLOROMETHYL) ETHER		**000542-88-1**								
	INHALATION: INTERMITTENT	10-100 DAYS RAT	RESPIRATORY SYSTEM	TUMORS	IRIS	IRIS	2.2E+2	IRIS	IRIS	005077
	ORAL [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
BROMODICHLOROMETHANE		**000075-27-4**								
					IRIS	IRIS		IRIS		005148
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
BROMOETHENE / (VINYL BROMIDE)		**000593-60-2**								
	INHALATION: INTERMITTENT	2 YEARS RAT	LIVER	TUMORS	B2		1.1E-1		3 2E-5	010094
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
BROMOFORM		**000075-25-2**								
	ORAL · GAVAGE	2 YEARS RAT	INTESTINE, LARGE	ADENOMATOUS POLYP ADENOCARCINOMA	IRIS	IRIS	3.9E-3	IRIS	IRIS	005150
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST. GENERAL COMMENT: ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
BUTADIENE, 1,3-		**000106-99-0**								
	INHALATION: INTERMITTENT	MOUSE	MULTIPLE SITES	TUMORS	IRIS		1.8E+0		IRIS	010477
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
BUTYL BENZYL PHTHALATE, N-	**000085-68-7**									
					IRIS					005122
GENERAL COMMENT. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CADMIUM	**007440-43-9**									
					IRIS				IRIS	005019
ORAL [SLOPE] COMMENT THERE IS INADEQUATE EVIDENCE FOR THE CARCINOGENICITY OF THIS COMPOUND BY THE ORAL ROUTE.										
GENERAL COMMENT. ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
CAPTAFOL	**002425-06-1**									
	ORAL: DIET				C	8.6E-3		2.4E-7		010095
		MOUSE	LYMPHATIC SYSTEM	LYMPHOSARCOMA						
ORAL [SLOPE] COMMENT· UNDER REVIEW, NUMBER SUBJECT TO CHANGE										
GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CAPTAN	**000133-06-2**									
					B2	3.5E-3		1.0E-7		010184
ORAL [SLOPE] COMMENT. UNDER REVIEW, NUMBER SUBJECT TO CHANGE										
GENERAL COMMENT· ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CARBAZOLE	**000086-74-8**									
	ORAL: DIET	96 WEEKS			B2	2E-2		5.7E-7		010096
		MOUSE	LIVER	TUMORS						
CARBON TETRACHLORIDE	**000056-23-5**									
	ORAL: DIET		LIVER	TUMORS	IRIS	IRIS	5 3E-2	IRIS	IRIS	005022
INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II DOSE CONVERSIONS ON HEAST										
INHALATION [UNIT RISK] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION. INCORPORATES AN ABSORPTION FACTOR OF 0.4.										
GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
CHLORANIL		**000118-75-2**								
	ORAL. DIET	82 WEEKS			C	4.03E-1		1.2E-5		010097
		MOUSE	LIVER	TUMORS						
			LUNG	TUMORS						
CHLORDANE		**000057-74-9**								
	ORAL · DIET				IRIS	IRIS	1.3E+0	IRIS	IRIS	005024
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II · DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 · SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
CHLORO-2-METHYLANILINE HYDROCHLORIDE, 4-		**003165-93-3**								
	ORAL: DIET	18 MONTHS			B2	4.6E-1		1.3E-5		010419
		MOUSE	CARDIOVASCULAR SYSTEM	HEMANGIOMA						
			CARDIOVASCULAR SYSTEM	HEMANGIOSARCOMA						
CHLORO-2-METHYLANILINE, 4-		**000095-69-2**								
	ORAL · DIET	18 MONTHS			B2	5.8E-1		1 6E-5		010098
		MOUSE	CARDIOVASCULAR SYSTEM	HEMANGIOMA						
			CARDIOVASCULAR SYSTEM	HEMANGIOSARCOMA						
	ORAL [SLOPE] COMMENT: BASED ON VASCULAR TUMORS IN MICE TREATED WITH 4-CHLORO-2-METHYLANILINE HYDROCHLORIDE.									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
CHLOROBENZILATE		**000510-15-6**								
	ORAL: GAVAGE, DIET	82 WEEKS MOUSE	LIVER	HEPATOMA	B2	2.7E-1	2 7E-1	7.8E-6	7.8E-5	010848
	INHALATION [SLOPE] COMMENT. ABSORBANCE BY THE INHALATION ROUTE WAS ASSUMED TO EQUAL ORAL ABSORPTION SINCE THERE WERE NO PHARMACOKINETIC DATA TO THE CONTRARY. SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST									
	INHALATION [UNIT RISK] COMMENT ABSORBANCE BY THE INHALATION ROUTE WAS ASSUMED TO EQUAL ORAL ABSORPTION SINCE THERE WERE NO PHARMACOKINETIC DATA TO THE CONTRARY.									
	GENERAL COMMENT ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
CHLOROFORM		**000067-66-3**								
					IRIS	IRIS		IRIS		005036
	ORAL. GAVAGE	78 WEEKS MOUSE	LIVER	CARCINOMA	IRIS		8.1E-2		IRIS	005035
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
CHLOROMETHANE		**000074-87-3**								
	INHALATION· INTERMITTENT	24 MONTHS MOUSE	KIDNEY	TUMORS	C	1.3E-2	6 3E-3	3 7E-7	1 8E-6	005038
	ORAL [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION.									
	GENERAL COMMENT· ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENCIITY).									
CHLOROMETHYL METHYL ETHER		**000107-30-2**								
					IRIS					005081
CHLORONITROBENZENE, O-		**000088-73-3**								
	ORAL DIET	18 MONTHS MOUSE	LIVER	TUMORS	B2	2.5E-2		7.1E-7		010099

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
CHLORONITROBENZENE, P-		**000100-00-5**								
	ORAL: DIET	18 MONTHS MOUSE	CARDIOVASCULAR SYSTEM	TUMORS	B2	1.8E-2		5.1E-7		010100
CHLOROTHALONIL		**001897-45-6**								
	ORAL: DIET	27-32 MONTHS RAT	KIDNEY	TUMOR	B2	1.1E-2		3 1E-7		010384
	ORAL [SLOPE] COMMENT. UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
CHROMIUM(VI)		**018540-29-9**								
	INHALATION· OCCUPATIONAL	HUMAN	LUNG	TUMORS	IRIS		4 1E+1		IRIS	005091
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT· ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
CHRYSENE		**000218-01-9**								
					IRIS					010185
	GENERAL COMMENT: SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
COKE OVEN EMISSIONS		**008007-45-2**								
	INHALATION: OCCUPATIONAL	HUMAN	LUNG	TUMORS	IRIS		2.2E+0		IRIS	005039
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: FORMERLY LISTED UNDER COAL TARS.									
CREOSOTE, COAL TAR		**008001-58-9**								
					IRIS					005042

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
CRESOL, M- / (3-METHYLPHENOL)	**000108-39-4**									
					IRIS					010187
GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CRESOL, O- / (2-METHYLPHENOL)	**000095-48-7**									
					IRIS					010186
GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CRESOL, P- / (4-METHYLPHENOL)	**000106-44-5**									
					IRIS					010188
GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
CROTONALDEHYDE		**000123-73-9**								
	ORAL· DRINKING WATER	113 WKS RAT	LIVER	TUMOR	IRIS	1.9E+0		5.4E-5		010190
ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.										
CYANAZINE		**021725-46-2**								
	ORAL: DIET	2 YEARS RAT	MAMMARY GLAND	ADENOMA/ CARCINOMA, COMBINED	C	8.4E-1		2 4E-5		010944
GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
DDD		**000072-54-8**								
					IRIS	IRIS		IRIS		010291

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DDE		**000072-55-9**								
					IRIS	IRIS		IRIS		010292
DDT		**000050-29-3**								
	ORAL · DIET				IRIS	IRIS	3.4E-1	IRIS	IRIS	005044
		MOUSE, RAT	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
DECABROMODIPHENYL ETHER		**001163-19-5**								
					IRIS					010102
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
DIALLATE		**002303-16-4**								
	ORAL	19 MONTHS			B2	6.1E-2		1 7E-6		010103
		MOUSE	LIVER	TUMORS						
DIBENZO[A,H]ANTHRACENE		**000053-70-3**								
					IRIS					010191

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DIBROMO-3-CHLOROPROPANE, 1,2 000096-12-8										
	ORAL: DIET				B2	1.4E+0		4E-5		010484
			STOMACH	TUMORS						
			KIDNEY	TUMORS						
			LIVER	TUMORS						
	[EPA GROUP] COMMENT: UNDER REVIEW. CLASSIFICATION SUBJECT TO CHANGE									
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST.									
	INHALATION INTERMITTENT	RAT, MOUSE	NASAL CAVITY	TUMORS	B2		2 4E-3		6 9E-7	010519
DIBROMOCHLOROMETHANE 000124-48-1										
					IRIS	IRIS		IRIS		010891
	GENERAL COMMENT FORMERLY LISTED AS CHLORODIBROMOMETHANE. ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
DIBROMOETHANE, 1,2- 000106-93-4										
					IRIS	IRIS		IRIS		005818
	GENERAL COMMENT FORMERLY LISTED UNDER ETHYLENE DIBROMIDE									
	INHALATION INTERMITTENT	88-103 WEEKS / RAT	NASAL CAVITY	TUMORS	IRIS		7 6E-1		IRIS	005071
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DICHLORO-2-BUTENE, 1,4-	**000764-41-0**									
	INHALATION INTERMITTENT	90 DAYS RAT	NASAL PASSAGES	TUMORS	B2		9.3E+0		2 6E-3	005053
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT. FORMERLY LISTED UNDER DICHLOROBUTENES									
DICHLOROBENZENE, 1,4-	**000106-46-7**									
	ORAL: GAVAGE	103 WEEKS MOUSE	LIVER	TUMORS	C	2.4E-2		6 8E-7		*005050*
	ORAL [SLOPE] COMMENT UNDER REVIEW. NUMBER SUBJECT TO CHANGE									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
DICHLOROBENZIDINE, 3,3'-	**000091-94-1**									
					IRIS	IRIS		IRIS		005815
DICHLOROETHANE, 1,1-	**000075-34-3**									
					IRIS					005055
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
DICHLOROETHANE, 1,2-	**000107-06-2**									
	ORAL. GAVAGE	78 WEEKS RAT	CIRCULATORY SYSTEM	SARCOMA	IRIS	IRIS		IRIS	IRIS	005058
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DICHLOROETHYLENE, 1,1-	**000075-35-4**									
					IRIS	IRIS		IRIS		005060
	INHALATION	12 MONTHS			IRIS		1.2E+0		IRIS	005059
		MOUSE	KIDNEY	ADENOCARCINOMA						
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
DICHLOROPROPANE, 1,2-	**000078-87-5**									
	ORAL: GAVAGE				B2	6.8E-2		1.9E-6		005062
		MOUSE	LIVER	TUMORS						
	ORAL [SLOPE] COMMENT. UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DICHLOROPROPENE, 1,3- / (TELONE II)	**000542-75-6**									
	ORAL. GAVAGE	104 WEEKS			IRIS	1 8E-1		5E-6		010946
		MOUSE	BLADDER	CARCINOMA						
			RESPIRATORY SYSTEM	ALVEOLAR/ BRONCHIOLAR ADENOMA						
			FORESTOMACH	PAPILLOMA/ CARCINOMA						
	ORAL: GAVAGE	104 WEEKS								
		RAT	LIVER	NEOPLASTIC NODULE/CARCINOMA						
			FORESTOMACH	PAPILLOMA/ CARCINOMA						
	ORAL [SLOPE] COMMENT· THE [SLOPE] IS THE GEOMETRIC MEAN OF SLOPE FACTORS OF COMBINED TUMORS LISTED									
	GENERAL COMMENT ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
	INHALATION: INTERMITTENT	2 YEARS			IRIS		1 3E-1		3.7E-5	010104
		MOUSE	LUNG	ADENOMA						
	INHALATION [SLOPE] COMMENT· SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
DIELDRIN	**000060-57-1**									
	ORAL. DIET				IRIS	IRIS	1.6E+1	IRIS	IRIS	005816
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT. SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST.									
	INHALATION [UNIT RISK] COMMENT BASED ON ROUTE-TO-ROUTE EXTRAPOLATION									
	GENERAL COMMENT· ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DIETHYLSTILBESTROL		**000056-53-1**								
	ORAL DIET				A	4.7E+3		1 3E-1		010485
		MOUSE	MAMMARY GLAND	CARCINOMA						
DIMETHOXYBENZIDINE, 3,3'-		**000119-90-4**								
	ORAL: DIET	LIFETIME			B2	1 4E-2		4E-7		010106
		HAMSTER	FORESTOMACH	PAPILLOMA						
DIMETHYLANILINE HYDROCHLORIDE, 2,4-		**021436-96-4**								
	ORAL: DIET	18 MONTHS			C	5 8E-1		1.7E-5		010108
		MOUSE	LUNG	TUMORS						
DIMETHYLANILINE, 2,4-		**000095-68-1**								
	ORAL: DIET	18 MONTHS			C	7.5E-1		2.1E-5		010107
		MOUSE	LUNG	TUMORS						
DIMETHYLBENZIDINE, 3,3'-		**000119-93-7**								
	ORAL: GAVAGE	30 DAYS			B2	9 2E+0		2 6E-4		010109
		RAT	MAMMARY	TUMORS						
DIMETHYLHYDRAZINE, 1,1-		**000057-14-7**								
	GENERAL COMMENT: NO EPA GROUP CLASSIFICATION WAS PROVIDED IN THE REFERENCE DOCUMENT, THEREFORE THIS COMPOUND WAS REMOVED FROM TABLE 3									
DIMETHYLHYDRAZINE, 1,2-		**000540-73-8**								
					B2					010962
DIMETHYLSULFATE		**000077-78-1**								
					IRIS					010112

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DINITROTOLUENE, 2,4-	**000121-14-2**									
					IRIS	IRIS		IRIS		005066
GENERAL COMMENT: LISTED AS "DINITROTOLUENE MIXTURE, 2,4-/2,6-" ON IRIS. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
DINITROTOLUENE, 2,6-	**000606-20-2**									
					IRIS	IRIS		IRIS		005068
GENERAL COMMENT: LISTED AS "DINITROTOLUENE MIXTURE, 2,4-/2,6-" ON IRIS. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
DIOXANE, 1,4-	**000123-91-1**									
					IRIS	IRIS		IRIS		010298
DIPHENYLHYDRAZINE, 1,2-	**000122-66-7**									
	ORAL: DIET	2 YEARS / RAT	LIVER	TUMORS	IRIS	IRIS	8.0E-1	IRIS	IRIS	005070
INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.										
DIRECT BLACK 38	**001937-37-7**									
	ORAL: DIET	93 DAYS / RAT	LIVER	TUMORS	A	8.6E+0		2.4E-4		010113
ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.										
DIRECT BLUE 6	**002602-46-2**									
	ORAL: DIET	91 DAYS / RAT	LIVER	TUMORS	A	8.1E+0		2.3E-4		010114
ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.										

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
DIRECT BROWN 95		**016071-86-6**								
	ORAL: DIET	91 DAYS			A	9.3E+0		2 6E-4		010115
		RAT	LIVER	TUMORS						
	ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
DIRECT SKY BLUE 6B		**002610-05-1**								
					B2					010116
	[EPA GROUP] COMMENT: BASED ON THE FACT THAT 3,3-DIMETHOXYBENZIDINE, A KNOWN EPA GROUP B2 CARCINOGEN, IS A METABOLITE OF DIRECT SKY BLUE 6B.									
EPICHLOROHYDRIN		**000106-89-8**								
					IRIS	IRIS		IRIS		010198
	INHALATION: INTERMITTENT	30 DAYS, OBSERVED LIFETIME			IRIS		4.2E-3		IRIS	010117
		RAT	NASAL CAVITY	TUMORS						
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
ETHYL ACRYLATE		**000140-88-5**								
	ORAL, GAVAGE	104 WEEKS			B2	4 8E-2		1 4E-6		010118
		RAT	FORESTOMACH	TUMORS						

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
ETHYLENE OXIDE		**000075-21-8**								
	ORAL · GAVAGE	LIFETIME, TWICE WEEKLY RAT	STOMACH	TUMORS	B1	1.02E+0		2.9E-5		010421
	ORAL [SLOPE] COMMENT · UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	INHALATION, INTERMITTENT	2 YEARS RAT	BLOOD BRAIN	LEUKEMIA GLIOMA	B1		3.5E-1		1E-4	010422
	INHALATION [UNIT RISK] COMMENT · UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
ETHYLENE THIOUREA		**000096-45-7**								
	ORAL, GAVAGE	2 YEARS MOUSE	LIVER	ADENOMA/ CARCINOMA, COMBINED	B2	1.1E-1		3.4E-6		010947
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 · SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
FOLPET		**000133-07-3**								
					IRIS	IRIS		IRIS		010120
	GENERAL COMMENT ALSO SEE HEAST TABLE 1 · SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
FORMALDEHYDE		**000050-00-0**								
	INHALATION	24 MONTHS RAT	NASAL CAVITY	TUMORS	IRIS		4 5E-2		IRIS	010121
	INHALATION [SLOPE] COMMENT · SEE APPENDIX A-11: DOSE CONVERSIONS ON HEAST. GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
FURAZOLIDONE		**000067-45-8**								
	ORAL: DIET	45 WEEKS			B2	3 8E+0		1E-4		005106
		RAT	MAMMARY	TUMORS						
	GENERAL COMMENT. FORMERLY LISTED UNDER NITROFURANS									
FURIUM		**000531-82-8**								
	ORAL: DIET	28 WEEKS			B2	5 0E+1		1 4E-3		005108
		MOUSE	BLOOD	LEUKEMIA						
	GENERAL COMMENT. FORMERLY LISTED UNDER NITROFURANS									
GLYCIDALDEHYDE		**000765-34-4**								
					IRIS					010122
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HEPTACHLOR		**000076-44-8**								
	ORAL: DIET				IRIS	IRIS	4.5E+0	IRIS	IRIS	005820
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HEPTACHLOR EPOXIDE		**001024-57-3**								
	ORAL: DIET	18-24 MONTHS			IRIS	IRIS	9.1E+0	IRIS	IRIS	010424
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
HEXACHLOROBENZENE	**000118-74-1**									
	ORAL: DIET				IRIS	IRIS	1.6E+0	IRIS	IRIS	010365
		RAT	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HEXACHLOROBUTADIENE	**000087-68-3**									
	ORAL: DIET	22-24 MONTHS			IRIS	IRIS	7.8E-2	IRIS	IRIS	005088
		RAT	KIDNEY	TUMORS						
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HEXACHLOROCYCLOHEXANE, ALPHA-	**000319-84-6**									
	ORAL: DIET	24 WEEKS			IRIS	IRIS	6.3E+0	IRIS	IRIS	010123
		MOUSE	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
HEXACHLOROCYCLOHEXANE, BETA-	**000319-85-7**									
	ORAL: DIET	110 WEEKS			IRIS	IRIS	1.8E+0	IRIS	IRIS	010124
		MOUSE	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
HEXACHLOROCYCLOHEXANE, DELTA-	**000319-86-8**									
					IRIS					010125
	GENERAL COMMENT· ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
HEXACHLOROCYCLOHEXANE, EPSILON-	**006108-10-7**									
					IRIS					010126
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
HEXACHLOROCYCLOHEXANE, GAMMA- 000058-89-9										
	ORAL: DIET	110 WEEKS MOUSE	LIVER	TUMORS	B2-C	1.3E+0		3.7E-5		005098
	ORAL [SLOPE] COMMENT UNDER REVIEW. NUMBER SUBJECT TO CHANGE. GENERAL COMMENT· ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HEXACHLOROCYCLOHEXANE-TECHNICAL 000608-73-1										
	ORAL: DIET	6-20 MONTHS MOUSE	LIVER	TUMORS	IRIS	IRIS	1.8E+0	IRIS	IRIS	010127
	INHALATION [SLOPE] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST.									
HEXACHLOROETHANE 000067-72-1										
	ORAL. GAVAGE	78 WEEKS MOUSE	LIVER	CARCINOMA	IRIS	IRIS	1 4E-2	IRIS	IRIS	005090
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST. GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
HYDRAZINE 000302-01-2										
					IRIS	IRIS		IRIS		010129
	INHALATION: INTERMITTENT	1 YEAR RAT	NASAL CAVITY	TUMORS	IRIS		1 7E+1		IRIS	010128
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)$^{-1}$	REFERENCE
HYDRAZINE SULFATE		**010034-93-2**								
					IRIS	IRIS		IRIS		010131
	INHALATION: INTERMITTENT	1 YEAR RAT	NASAL CAVITY	TUMORS	IRIS		1 7E+1		IRIS	010130
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT LISTED UNDER "HYDRAZINE" ON IRIS.									
INDENO[1,2,3-CD]PYRENE		**000193-39-5**								
					IRIS					010192
ISOPHORONE		**000078-59-1**								
					IRIS	IRIS		IRIS		005094
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1, SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
LEAD		**007439-92-1**								
					IRIS					005096
	GENERAL COMMENT ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
LINURON		**000330-55-2**								
					IRIS					010383
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
MERCURIC CHLORIDE		**007487-94-7**								
					IRIS					010971
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
MERCURY, ELEMENTAL		**007439-97-6**								
					IRIS					010973
	GENERAL COMMENT ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
METHOXY-5-NITROANILINE, 2-		**000099-59-2**								
	ORAL. DIET	104 WEEKS			B2	4.6E-2		1 3E-6		010132
		RAT	SKIN	CARCINOMA						
METHYLHYDRAZINE		**000060-34-4**								
	GENERAL COMMENT· NO EPA GROUP CLASSIFICATION WAS PROVIDED IN THE REFERENCE DOCUMENT. THEREFORE THIS COMPOUND WAS REMOVED FROM TABLE 3									
METHYL-5-NITROANILINE, 2-		**000099-55-8**								
	ORAL· DIET	98 WEEKS			C	3 3E-2		9.4E-7		010140
		MOUSE	LIVER	CARCINOMA						
METHYLANILINE HYDROCHLORIDE, 2-		**000636-21-5**								
	ORAL· DIET	93 WEEKS			B2	1 8E-1		5.1E-6		010134
		RAT	SKIN	FIBROMA						
METHYLANILINE, 2-		**000095-53-4**								
	ORAL· DIET	93 WEEKS			B2	2.4E-1		6 9E-6		010133
		RAT	SKIN	FIBROMA						
	GENERAL COMMENT THE 1984 HEEP CALLED THIS COMPOUND O-TOLUIDINE. THE 1987 HEEP CALLED IT 2-METHYLANILINE									
METHYLENE CHLORIDE / (DICHLOROMETHANE)		**000075-09-2**								
					IRIS	IRIS		IRIS		005100
					IRIS				IRIS	005904
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)^{1}	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
METHYLENE-BIS(BENZENEAMINE), 4,4- / (4,4'-METHYLENEDIANILINE) 000101-77-9										
GENERAL COMMENT. NO EPA GROUP CLASSIFICATION WAS PROVIDED IN THE REFERENCE DOCUMENT. THEREFORE THIS COMPOUND WAS REMOVED FROM TABLE 3										
METHYLENE-BIS(2-CHLOROANILINE), 4,4'- 000101-14-4										
	ORAL: DIET	2 YEARS			B2	1.3E-1	1 3E-1	3.7E-6	3.7E-5	010425
		RAT	LUNG	TUMORS						
INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II: DOSE CONVERSIONS ON HEAST. BASED ON ROUTE TO ROUTE EXTRAPOLATION										
METHYLENE-BIS(N,N'-DIMETHYL)ANILINE, 4,4'- 000101-61-1										
					IRIS	IRIS		IRIS		010137
GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
METHYLMERCURY		**0022967-92-6**								
					IRIS					010972
GENERAL COMMENT· ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).										
METOLACHLOR		**051218-45-2**								
					IRIS					010951
MIREX		**002385-85-5**								
	ORAL: DIET	2 YEARS			B2					010952
		RAT	LIVER	ADENOMA						
			LIVER	CARCINOMA						
[EPA GROUP] COMMENT: UNDER REVIEW. CLASSIFICATION SUBJECT TO CHANGE.										
GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)										
NIAGARA BLUE 4B		**002429-74-5**								
					B2					010141
[EPA GROUP] COMMENT: BASED ON THE FACT THAT 3,3-DIMETHOXYBENZIDINE, A KNOWN EPA GROUP B2 CARCINOGEN, IS A METABOLITE OF NIAGARA BLUE 4B.										

CHEMICAL	ROUTE	EXPERIMENT LENGTH SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
NICKEL REFINERY DUST										
	INHALATION:				IRIS		8.4E-1		IRIS	005103
	OCCUPATIONAL	HUMAN	RESPIRATORY SYSTEM	TUMORS						
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: FORMERLY LISTED AS NICKEL. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (UNDER NICKEL, SOLUBLE SALTS).									
NICKEL SUBSULFIDE		**012035-72-2**								
	INHALATION:				IRIS		1.7E+0		IRIS	005768
	OCCUPATIONAL	HUMAN	RESPIRATORY SYSTEM	TUMORS						
	INHALATION [SLOPE] COMMENT: SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: FORMERLY LISTED AS NICKEL. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (UNDER NICKEL).									
NITROBENZENE		**000098-95-3**								
	INHALATION	2 YEAR MICE	LUNG	ADENOMA	B2					010969
			LUNG	CARCINOMA						
			THYROID	ADENOMA						
			MAMMARY	ADENOCARCINOMA						
	INHALATION	2 YEAR RAT	LIVER	ADENOMA						
			LIVER	CARCINOMA						
			KIDNEY	ADENOMA						
			KIDNEY	ADENOCARCINOMA						
			UTERUS	ENDIOMETRIAL POLYPS						
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY.									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
NITROFURAZONE		**000059-87-0**								
	ORAL DIET	46 WEEKS RAT	MAMMARY	TUMORS	B2	1.5E+0		4.3E-5		005110
NITROPROPANE, 2-		**000079-46-9**								
	INHALATION INTERMITTENT	22 MONTHS RAT	LIVER	TUMORS	B2		9 4E+0		2 7E-3	010142
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II· DOSE CONVERSIONS ON HEAST.									
NITROSO-DI-N-BUTYLAMINE, N-		**000924-16-3**								
	ORAL· DRINKING WATER	LIFETIME MOUSE	BLADDER ESOPHAGUS	TUMORS TUMORS	IRIS	IRIS	5 4E+0	IRIS	IRIS	010143
	INHALATION [SLOPE] COMMENT. BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
NITROSO-DI-N-PROPYLAMINE, N-		**000621-64-7**								
					IRIS	IRIS		IRIS		010147
NITROSO-N-ETHYLUREA, N-		**000759-73-9**								
	ORAL: DRINKING WATER	203 DAYS RAT	INTESTINE	GASTROINTESTINAL TUMORS	B2	1.4E+2				010426
	[EPA GROUP] COMMENT. UNDER REVIEW, CLASSIFICATION SUBJECT TO CHANGE.									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
NITROSO-N-METHYLUREA, N- 000684-93-5										
	ORAL· GAVAGE	308 DAYS GUINEA PIG	PANCREAS	ADENOCARCINOMA	B2					010427
	[EPA GROUP] COMMENT· UNDER REVIEW, CLASSIFICATION SUBJECT TO CHANGE GENERAL COMMENT· THE CRAVE WORK GROUP (04/01/92) STATES THERE IS NO ACCEPTABLE QUANTITATION FOR NITROSO-N-METHYLUREA, N-.									
NITROSODIETHANOLAMINE, N- 001116-54-7					IRIS	IRIS		IRIS		010144
NITROSODIETHYLAMINE, N- 000055-18-5										
	ORAL· DRINKING WATER	6 OR 12 MONTHS RAT	LIVER	TUMORS	IRIS	IRIS	1.5E+2	IRIS	IRIS	010145
	INHALATION [SLOPE] COMMENT· BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
NITROSODIMETHYLAMINE, N- 000062-75-9										
	ORAL: DRINKING WATER	RAT	LIVER	TUMORS	IRIS	IRIS	5 1E+1	IRIS	IRIS	010146
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
NITROSODIPHENYLAMINE, N- 000086-30-6					IRIS	IRIS		IRIS		005112
NITROSOMETHYLETHYLAMINE, N- 010595-95-6					IRIS	IRIS		IRIS		010148

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)^{1}	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
NITROSOMETHYLVINYLAMINE, N	**004549-40-0**									
	INHALATION				B2					010149
		RAT	UPPER RESPIRATORY TRACT	CARCINOMAS						
	ORAL: DRINKING WATER		UPPER DIGESTIVE TRACT	CARCINOMAS						
NITROSOPYRROLIDINE, N-	**000930-55-2**									
	ORAL: DIET	LIFETIME			IRIS	IRIS	2.1E+0	IRIS	IRIS	010300
		RAT	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST									
PARATHION	**000056-38-2**									
					IRIS					005116
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
PENTABROMO-6-CHLOROCYCLOHEXANE, 1,2,3,4,5-	**000087-84-3**									
	ORAL DIET	2 YEARS			C	2 3E-2		6.6E-7		010150
		RAT	INTESTINE, LARGE	TUMORS						
	ORAL [SLOPE] COMMENT: BASED ON RESULTS WITH THE ALPHA ISOMER.									
PENTACHLORONITROBENZENE	**000082-68-8**									
	ORAL	72 WEEKS			C	2.6E-1		7.4E-6		010151
		MOUSE	LIVER	TUMORS						
	ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
PENTACHLOROPHENOL		**000087-86-5**								
					IRIS	IRIS		IRIS		010381
	GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
PHENYLENEDIAMINE, O-		**000095-54-5**								
	ORAL · DIET	548 DAYS			B2	4.7E-2		1 3E-6		010152
		RAT	LIVER	TUMORS						
	ORAL [SLOPE] COMMENT. BASED ON LIVER TUMORS IN RATS TREATED WITH O-PHENYLENEDIAMINE DIHYDROCHLORIDE.									
	GENERAL COMMENT· ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY.									
PHENYLPHENOL, 2-		**000090-43-7**								
	ORAL. DIET	637 DAYS			C	1.94E-3		5 5E-8		010153
		RAT	URINARY BLADDER	TUMORS						
POLYBROMINATED BIPHENYLS										
	ORAL GAVAGE	25 WEEKS			B2	8.9E+0		2 5E-4		010154
		RAT	LIVER	CARCINOMA						
			LIVER	NEOPLASTIC NODULE						
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
POLYCHLORINATED BIPHENYLS		**001336-36-3**								
					IRIS	IRIS		IRIS		005118
	GENERAL COMMENT. CARCINOGENICITY INFORMATION WAS CHANGED ON IRIS									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
PROPYLENE OXIDE		**000075-56-9**								
					IRIS	IRIS		IRIS		010156
	INHALATION. INTERMITTENT	2 YEARS MOUSE	NASAL CAVITY	TUMORS	IRIS		1 3E-2		IRIS	010155
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
QUINOLINE		**000091-22-5**								
	ORAL · DIET	20-40 WEEKS RAT	LIVER	TUMORS	C	1.2E+1		3 5E-4		010158
RDX / (CYCLONITE)		**000121-82-4**								
					IRIS	IRIS		IRIS		010157
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
SELENIUM SULFIDE		**007446-34-6**								
					IRIS					010194
	ORAL [SLOPE] COMMENT STUDY RESULTS WERE CONSIDERED INCONCLUSIVE FOR QUANTITATIVE RISK ASSESSMENT									
SIMAZINE		**000122-34-9**								
	ORAL. DIET	2 YEARS RAT	MAMMARY	CARCINOMA	C	1 2E-1		3 4E-6		010195
	ORAL [SLOPE] COMMENT: UNDER REVIEW, NUMBER SUBJECT TO CHANGE									
	GENERAL COMMENT: ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
SODIUM DIETHYLDITHIOCARBAMATE 000148-18-5										
	ORAL: DIET	77 WEEKS MOUSE	LIVER	TUMORS	C	2.7E-1		7.7E-6		005126
	GENERAL COMMENT ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
STYRENE 000100-42-5										010480
	GENERAL COMMENT· CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300 ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
TCDD, 2,3,7,8- 001746-01-6										
	ORAL: DIET	720 DAYS			B2	1 5E+5	1 5E+5	4.5E+0	3.3E-5 (PG/CU M)-1	005128
		RAT	RESPIRATORY SYSTEM	TUMORS						
			LIVER	TUMORS						
	ORAL [SLOPE] COMMENT UNDER REVIEW. NUMBER SUBJECT TO CHANGE. INHALATION [SLOPE] COMMENT· SEE APPENDIX A-II· DOSE CONVERSIONS ON HEAST INHALATION [UNIT RISK] COMMENT: UNDER REVIEW. NUMBER SUBJECT TO CHANGE BASED ON ROUTE TO ROUTE EXTRAPOLATION AN ABSORPTION FACTOR OF 75% IS USED TO CALCULATE THE UNIT RISK FROM THE SLOPE FACTOR									
TETRACHLOROETHANE, 1,1,1,2- 000630-20-6										
	ORAL GAVAGE	103 WEEKS			IRIS	IRIS	2.6E-2	IRIS	IRIS	010302
			LIVER	TUMOR						
	INHALATION [SLOPE] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II. DOSE CONVERSIONS ON HEAST									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
TETRACHLOROETHANE, 1,1,2,2- 000079-34-5										
	ORAL. GAVAGE	75 WEEKS			IRIS	IRIS	2 0E-1	IRIS	IRIS	005130
		MOUSE	LIVER	CARCINOMA						
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST.									
TETRACHLOROETHYLENE 000127-18-4										010482
	GENERAL COMMENT: CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER· (513) 569-7300 ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
TETRACHLOROTOLUENE, PARA, ALPHA, ALPHA, ALPHA- 005216-25-1										
	ORAL· GAVAGE	17 5 WEEKS			B2	2.0E+1		5 7E-4		005028
		MOUSE	LUNG	ADENOCARCINOMA						
TETRACHLOROVINPHOS / (STIROFOS) 000961-11-5										
	ORAL: DIET	560 DAYS			C	2.4E-2		6.9E-7		010159
		MOUSE	LIVER	TUMORS						
	[EPA GROUP] COMMENT UNDER REVIEW, CLASSIFICATION SUBJECT TO CHANGE. GENERAL COMMENT: ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
TOLUENE-2,4-DIAMINE 000095-80-7										
	ORAL. DIET	84-103 WEEKS			B2	3.2E+0		9.1E-5		010160
		RAT	MAMMARY	TUMORS						
TOLUIDINE, P- 000106-49-0										
	ORAL. DIET	18 MONTHS			C	1 9E-1		5 4E-6		010162
		MOUSE	LIVER	TUMORS						

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)$^{-1}$	REFERENCE
TOXAPHENE		**008001-35-2**								
	ORAL DIET	18 MONTHS MOUSE	LIVER	TUMORS	IRIS	IRIS	1 1E+0	IRIS	IRIS	005134
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST INHALATION [UNIT RISK] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION.									
TRICHLOROANILINE HYDROCHLORIDE, 2,4,6-				**033663-50-2**						
	ORAL, DIET	18 MONTHS MOUSE	VASCULAR SYSTEM	TUMORS	C	2 9E-2		8.2E-7		005142
TRICHLOROANILINE, 2,4,6-		**000634-93-5**								
	ORAL, DIET	18 MONTHS MOUSE	VASCULAR SYSTEM	TUMORS	C	3 4E-2		1E-6		010487
TRICHLOROETHANE, 1,1,2-		**000079-00-5**								
	ORAL GAVAGE	78 WEEKS MOUSE	LIVER	CARCINOMA	IRIS	IRIS	5.7E-2	IRIS	IRIS	005144
	INHALATION [SLOPE] COMMENT BASED ON ROUTE TO ROUTE EXTRAPOLATION. SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST GENERAL COMMENT. ALSO SEE HEAST TABLE 1· SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
TRICHLOROETHYLENE		**000079-01-6**								010483
	GENERAL COMMENT CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
TRICHLOROPHENOL, 2,4,6-		**000088-06-2**								
	ORAL: DIET	107 WEEKS RAT	BLOOD	LEUKEMIA	IRIS	IRIS	1E-2	IRIS	IRIS	010428
	INHALATION [SLOPE] COMMENT: BASED ON ROUTE TO ROUTE EXTRAPOLATION SEE APPENDIX A-II, DOSE CONVERSIONS ON HEAST. GENERAL COMMENT. ALSO SEE HEAST TABLE 1: SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
TRICHLOROPROPANE, 1,2,3-		**000096-18-4**								
	ORAL: GAVAGE	RAT	MULTIPLE SITES	TUMORS, BENIGN/MALIGNANT, COMBINED	B2	7E+0		2E-4		010849
	[EPA GROUP] COMMENT: UNDER REVIEW, CLASSIFICATION SUBJECT TO CHANGE GENERAL COMMENT: ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY).									
TRIFLURALIN		**001582-09-8**								
					IRIS	IRIS		IRIS		010163
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1 SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									
TRIMETHYL PHOSPHATE		**000512-56-1**								
	ORAL. GAVAGE	103 WEEKS MOUSE	UTERUS	TUMORS	B2	3.7E-2		1 1E-6		010164
TRINITROTOLUENE, 2,4,6-		**000118-96-7**								
					IRIS	IRIS		IRIS		010476
	GENERAL COMMENT. ALSO SEE HEAST TABLE 1. SUBCHRONIC AND CHRONIC TOXICITY (OTHER THAN CARCINOGENICITY)									

CHEMICAL	ROUTE	EXPERIMENT LENGTH / SPECIES	TARGET	CANCER	[EPA GROUP]	[SLOPE FACTOR] ORAL (mg/kg/day)$^{-1}$	[SLOPE FACTOR] INHALATION (mg/kg/day)$^{-1}$	[UNIT RISK] ORAL (ug/L)$^{-1}$	[UNIT RISK] INHALATION (ug/cu m)-1	REFERENCE
VINYL CHLORIDE		**000075-01-4**								
	ORAL: DIET	1001 DAYS			A	1.9E+0		5.4E-5		010368
		RAT	LUNG	TUMORS						
			LIVER	TUMORS						
	ORAL [SLOPE] COMMENT· UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	INHALATION· INTERMITTENT	1 YEAR			A		3 0E-1		8 4E-5	010367
		RAT	LIVER	TUMORS						
	INHALATION [SLOPE] COMMENT SEE APPENDIX A-II· DOSE CONVERSIONS ON HEAST.									
	INHALATION [UNIT RISK] COMMENT· UNDER REVIEW, NUMBER SUBJECT TO CHANGE.									
	GENERAL COMMENT· THE MOST RECENTLY REVIEWED QUANTITATIVE TOXICITY VALUES LISTED HERE APPEAR IN EPA DOCUMENTS PUBLISHED IN 1984 AND 1985. USE OF THESE VALUES ON AN INTERIM BASIS WAS VALIDATED BY CRAVE (04/05/90). THE AGENCY IS AWARE THAT THESE VALUES DO NOT INCORPORATE CONSIDERABLE INFORMATION THAT IS NOW AVAILABLE. THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT'S POSITION IS THAT THESE TOXICITY VALUES DO NOT REFLECT STATE-OF-THE-ART SCIENCE FOR VINYL CHLORIDE. EPA NOW HAS INDIVIDUAL ANIMAL DATA, NOT AVAILABLE WHEN THE ORAL UNIT RISK WAS CALCULATED, THAT MAY INFLUENCE THIS VALUE. ADDITIONAL INFORMATION THAT MAY BE FACTORED INTO A REVISED QUANTITATIVE TOXICITY VALUE INCLUDES DATA ON INCREASED SENSITIVITY OBSERVED IN YOUNG ANIMALS AND DATA ON METABOLISM/PHARMACOKINETICS. A UNIT RISK FOR AIR THAT CONSIDERS INFORMATION ON YOUNG AGE EXPOSURE INCREASES THE RISK (I.E . LOWERS THE RISK SPECIFIC DOSE) BY AT LEAST 3-FOLD THE CONSIDERATION OF METABOLISM PHARMACOKINETICS WILL FURTHER INCREASE THE RISK ONE UNPUBLISHED PHYSIOLOGICALLY-BASED PHARMACOKINETIC MODEL PREDICTION RESULTS IN A 100-FOLD INCREASED RISK									

ACEPHATE 030560-19-1

010086 CHEVRON CHEMICAL COMPANY. 1982 MRID NO 00105197. AVAILABLE FROM EPA WRITE TO FOI. EPA. WASHINGTON. DC 20460

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ACEPHATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE. WASHINGTON. DC

US EPA 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ACROLEIN 000107-02-8

005001 US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR ACROLEIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON DC.

US EPA 1992 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ACRYLAMIDE 000079-06-1

010087 JOHNSON K. S GORZINSKI. KM BODNER. ET AL 1986. CHRONIC TOXICITY AND ONCOGENICITY STUDY ON ACRYLAMIDE INCORPORATED IN THE DRINKING WATER OF FISCHER 344 RATS DOW CHEMICAL. USA. MIDLAND. MI

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ACRYLAMIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ACRYLONITRILE 000107-13-1

005004 BIO/DYNAMICS, INC. 1980. A 24-MONTH ORAL TOXICITY/CARCINOGENICITY STUDY OF ACRYLONITRILE ADMINISTERED IN DRINKING WATER TO FISCHER 344 RATS FINAL REPORT. VOL 1-4 PREPARED BY BIO/DYNAMICS, INC , DIVISION OF BIOLOGY AND SAFETY EVALUATION, EAST MILLSTONE, NJ, UNDER PROJECT NO 77-1744 (BDN-77-27) FOR MONSANTO COMPANY, ST LOUIS, MO.

BIO/DYNAMICS, INC 1980 A 24-MONTH ORAL TOXICITY/CARCINOGENICITY STUDY OF ACRYLONITRILE ADMINISTERED TO SPARTAN RATS IN THE DRINKING WATER, FINAL REPORT, VOL 1 AND 2. PREPARED BY BIO/DYNAMICS, INC., DIVISION OF BIOLOGY AND SAFETY EVALUATION, EAST MILLSTONE, NJ, UNDER PROJECT NO 77-1745 FOR MONSANTO COMPANY, ST LOUIS, MO

QUAST, JF, CE WADE, CG HUMISTON ET AL 1980. A 2-YEAR TOXICITY AND ONCOGENICITY STUDY WITH ACRYLONITRILE INCORPORATED IN THE DRINKING WATER OF RATS PREPARED BY THE TOXICOLOGY RESEARCH LABORATORY, HEALTH AND ENVIRONMENTAL RESEARCH, DOW CHEMICAL USA, MIDLAND, MI FOR THE CHEMICAL MANUFACTURERS ASSOCIATION, WASHINGTON, DC.

US EPA 1983 HEALTH ASSESSMENT DOCUMENT FOR ACRYLONITRILE, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC

US EPA, 1987 HEALTH EFFECTS ASSESSMENT FOR ACRYLONITRILE, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

005003 O'BERG, M 1980 EPIDEMIOLOGIC STUDY OF WORKERS EXPOSED TO ACRYLONITRILE J OCCUP MED. 22· 245-252

US EPA 1983 HEALTH ASSESSMENT DOCUMENT FOR ACRYLONITRILE, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR ACRYLONITRILE, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

US EPA, 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ALACHLOR 015972-60-8

010180 STOUT, LD, ET AL. 1983 A CHRONIC STUDY OF ALACHLOR ADMINISTERED IN FEED TO LONG-EVANS RATS. EHL #800218, PROJECT NO. ML-80-186, REPORT MSL-3282/3284. VOL. I AND II UNPUBLISHED STUDY RECEIVED FEB 28, 1984 UNDER U S EPA REG NO. 524-316, PREPARED BY MONSANTO ENVIRONMENTAL HEALTH LABORATORY (EHL), SUBMITTED BY MONSANTO CO , WASHINGTON, DC CDL·252496-7.

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ALACHLOR. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1992. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ALACHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ALDRIN 000309-00-2

005006 EPSTEIN, SS. 1975. THE CARCINOGENICITY OF DIELDRIN, PART I. SCI TOTAL ENVIRON 4: 1-52.

NCI (NATIONAL CANCER INSTITUTE). 1977 BIOASSAYS OF ALDRIN AND DIELDRIN FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 21 NCI-C6-TR-66 DHEW PUBLICATION NO (NIH) 78-821.

DAVIS, KJ, AND OG FITZHUGH. 1962 TUMORIGENIC POTENTIAL OF ALDRIN AND DIELDRIN FOR MICE TOXICOL APPL PHARMACOL. 4 187-189

DAVIS, KJ 1965. PATHOLOGY REPORT ON MICE FOR ALDRIN, DIELDRIN, HEPTACHLOR, OR HEPTACHLOR EPOXIDE FOR TWO YEARS. INT FOOD DRUG ADMIN.

US EPA 1986. CARCINOGENICITY ASSESSMENT OF ALDRIN AND DIELDRIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ALLYL CHLORIDE 000107-05-1

010181 US EPA 1983. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROPROPENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ANILINE **000062-53-3**

010088 CIIT (CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY) 1982. 104-WEEK CHRONIC TOXICITY STUDY IN RATS. ANILINE HYDROCHLORIDE. FINAL REPORT

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ANILINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ARAMITE **000140-57-8**

010206 OSER BL, AND M OSER 1962 2-(P-TERT-BUTYLPHENOXY)ISOPROPYL 2-CHLOROETHYL SULFITE (ARAMITE). II. CARCINOGENICITY TOXICOL APPL PHARMACOL 4 70-88.

POPPER H, SS STEINBERG, BL OSER, AND M OSER. 1960 THE CARCINOGENIC EFFECT OF ARAMITE IN RATS. CANCER. 13(5)· 1035-1046

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR ARAMITE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1991. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ARSENIC, INORGANIC 007440-38-2

005007 BROWN, CC AND KC CHU 1983 APPROACHES TO EPIDEMIOLOGIC ANALYSIS OF PROSPECTIVE AND RETROSPECTIVE STUDIES: EXAMPLE OF LUNG CANCER AND EXPOSURE TO ARSENIC IN: RISK ASSESSMENT PROC SIMS CONFERENCE ON ENVIRONMENTAL EPIDEMIOLOGY, JUNE 28-JULY 2, 1982, ALTA UT. SIAM PUBLICATION

BROWN, CC AND KC CHU 1983 IMPLICATIONS OF THE MULTISTAGE THEORY OF CARCINOGENESIS APPLIED TO OCCUPATIONAL ARSENIC EXPOSURE. J NAT CANCER INST. 70. 455-463.

LEE-FELDSTEIN, A 1983 ARSENIC AND RESPIRATORY CANCER IN MAN, FOLLOW-UP OF AN OCCUPATIONAL STUDY IN· ARSENIC: INDUSTRIAL, BIOMEDICAL, AND ENVIRONMENTAL PERSPECTIVES, W LEDERER AND R FENSTERHEIM, EDS, VAN NOSTRAND REINHOLD, NEW YORK.

BROWN, CC AND KC CHU 1983. A NEW METHOD FOR THE ANALYSIS OF COHORT STUDIES: IMPLICATIONS OF THE MULTISTAGE THEORY OF CARCINOGENESIS APPLIED TO OCCUPATIONAL ARSENIC EXPOSURE ENVIRON HEALTH PERSP. 50: 293-308.

HIGGINS, I 1982 ARSENIC AND RESPIRATORY CANCER AMONG A SAMPLE OF ANACONDA SMELTER WORKERS REPORT SUBMITTED TO THE OCCUPATIONAL SAFETY HEALTH ADMINISTRATION IN THE COMMENTS OF THE KENNECOTT MINERALS ON THE INORGANIC ARSENIC RULE MAKING, EXHIBIT 203-5

ENTERLINE, PE AND GM MARSH 1982 CANCER AMONG WORKERS EXPOSED TO ARSENIC AND OTHER SUBSTANCES IN A COPPER SMELTER AM J EPIDEMIOL 116. 895-911.

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR ARSENIC PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON DC

US EPA 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

010925 TSENG WP 1977 EFFECTS AND DOSE RESPONSE RELATIONSHIPS OF SKIN CANCER AND BLACKFOOT DISEASE WITH ARSENIC ENVIRON HEALTH PERSPECT. 19 108-119

TSENG WP, HM CHU, SW HOU, ET AL 1968 PREVALENCE OF SKIN CANCER IN AN EMDEMIC AREA OF CHRONIC ARSENICISM IN TAIWAN. J NATL CANCER INST. 40: 453-463.

US EPA. 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ASBESTOS 001332-21-4

005010 NTP (NATIONAL TOXICOLOGY PROGRAM). 1985 TOXICOLOGY AND CARCINOGENESIS STUDIES OF CHRYSOTILE ASBESTOS (CAS NO 1200-29-5) IN F344/N RATS (FEED STUDIES). TECHNICAL REPORT SERIES NO 295

US EPA. 1988 DRINKING WATER CRITERIA DOCUMENT FOR ASBESTOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

005919 US EPA 1986 AIRBORNE ASBESTOS HEALTH ASSESSMENT UPDATE. PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC EPA 600/8-84/003F.

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ATRAZINE 001912-24-9

010380 CIBA-GEIGY. 1986. TWO-YEAR FEEDING STUDY IN THE RAT. CONDUCTED BY AMERICAN BIOGENICS CORP MRID NO 262714-262727 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ATRAZINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

AZOBENZENE 000103-33-3

010089 NCI (NATIONAL CANCER INSTITUTE) 1979 BIOASSAY OF AZOBENZENE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECHNICAL REPORT SERIES NO 154 US DHEW PUBL NO (NIH) 79-1710 P 112.

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR AZOBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

BENZENE 000071-43-2

005011 WONG, O, RW MORGAN AND MD WHORTON. 1983. COMMENTS ON THE NIOSH STUDY OF LEUKEMIA IN BENZENE WORKERS. TECHNICAL REPORT SUBMITTED TO GULF CANADA, LTD. BY ENVIRONMENTAL HEALTH ASSOCIATES, AUGUST 31. CITED IN US EPA, 1985.

OTT, MG, JC TOWNSEND, WA FISHBECK AND RA LANGNER 1978 MORTALITY AMONG WORKERS OCCUPATIONALLY EXPOSED TO BENZENE. ARCH ENVIRON HEALTH. 33: 3-10.

RINSKY, RA, RJ YOUNG AND AB SMITH. 1981 LEUKEMIA IN BENZENE WORKERS. AM J IND MED 2. 217-245.

US EPA. 1987. MEMORANDUM FROM J ORME HEB, CSD/ODW TO C. VOGT, JUNE, 1987. CRITERIA AND STANDARDS DIVISION, ODW.

US EPA. 1985. INTERIM QUANTITATIVE CANCER UNIT RISK ESTIMATES DUE TO INHALATION OF BENZENE. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC. OFFICE OF AIR QUALITY PLANNING AND STANDARDS, WASHINGTON, DC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BENZIDINE 000092-87-5

005014 ZAVON, MR, U HOEGG AND E BINGHAM 1973 BENZIDINE EXPOSURE AS A CAUSE OF BLADDER TUMORS ARCH ENVIRON HEALTH, 27 1-73

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENZIDINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR BENZIDINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR BENZIDINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

BENZOTRICHLORIDE 000098-07-7

010092 FUKUDA K, H METSUSHITA AND K TAKEMOTO 1978 CARCINOGENICITY OF BENZOTRICHLORIDE BY THE ORAL ROUTE OF ADMINISTRATION (J-4774) IN· PROC 52ND ANN MEET JAPANESE INDUSTRIAL HEALTH ASSOC TSCA 8E SUBMISSION DOCUMENT NO 88-8000360, FICHE #204867, P 516-517.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENZOTRICHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BENZO[A]ANTHRACENE 000056-55-3

010182 REFER TO IRIS

US EPA 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BENZO[A]PYRENE 000050-32-8

010508 NEAL J, RH RIGDON 1967. GASTRIC TUMORS IN MICE FED BENZO[A]PYRENE A QUANTITATIVE STUDY TEX REP BIOL MED 25 553

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR POLYCYCLIC AROMATIC HYDROCARBONS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, FOR THE OFFICE OF WATER, WASHINGTON, DC.

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR POLYCYCLIC AROMATIC HYDROCARBONS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC.

BENZO[B]FLUORANTHENE 000205-99-2

010183 REFER TO IRIS.

US EPA 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BENZO[K]FLUORANTHENE 000207-08-9

010090 REFER TO IRIS

US EPA 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BENZYL CHLORIDE 000100-44-7

010093 LIJINSKI W 1986 CHRONIC BIOASSAY OF BENZYL CHLORIDE IN F344 RATS AND (C57BL/6J X BALB/C)F1 MICE J NATL CANCER INST. 76: 1231-1236

US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BENZYL CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BERYLLIUM 007440-41-7

005018 SCHROEDER, HA AND M MITCHNER 1975 LIFE-TIME STUDIES IN RATS EFFECTS OF ALUMINUM, BARIUM, BERYLLIUM AND TUNGSTEN. J NUTR 105. 421-427

US EPA 1991. DRINKING WATER CRITERIA DOCUMENT FOR BERYLLIUM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

005017 WAGONER, JK, PF INFANTE AND DL BAYLISS. 1980. BERYLLIUM: AN ETIOLOGIC AGENT IN THE INDUCTION OF LUNG CANCER, NONNEOPLASTIC RESPIRATORY DISEASE, AND HEART DISEASE AMONG INDUSTRIALLY EXPOSED WORKERS ENVIRON RES. 21· 15-34

US EPA. 1987. HEALTH ASSESSMENT DOCUMENT FOR BERYLLIUM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BIS(2-CHLOROETHYL) ETHER 000111-44-4

005076 INNES, JRM, BM ULLAND, MG VALERIO ET AL. 1969. BIOASSAY OF PESTICIDES AND INDUSTRIAL CHEMICALS FOR TUMORIGENICITY IN MICE. A PRELIMINARY NOTE J NATL CANCER INST 42. 1101-1114.

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR BIS(2-CHLOROETHYL)ETHER. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CHLOROALKYL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BIS(2-CHLORO-1-METHYLETHYL) ETHER 000108-60-1

005079 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982. CARCINOGENIC BIOASSAY OF BIS(2-CHLORO-1-METHYLETHYL) ETHER (70%) CONTAINING 2-CHLORO-1-METHYLETHYL(2-CHLOROPROPYL) ETHER (30%) IN B6C3F1 MICE (GAVAGE STUDY) NCI CARCINOGEN TECH REP SER NO 239 105 P ALSO PUBL AS DHHS (NIH) 83-1795

US EPA 1987, HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HALOETHERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

BIS(2-ETHYLHEXYL) PHTHALATE / (DEHP) **000117-81-7**

005120 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982 CARCINOGENESIS BIOASSAY OF DI(2-ETHYLHEXYL) PHTHALATE (CAS NO 117-81-7) IN F344 RATS AND B6C3F1 MICE (FEED STUDY) NTP TECH REPORT SER NO 217. NIH/PUB-82-1773. NTP-80-37. NTIS PB82-184011

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHTHALIC ACID ALKYL. ARYL AND ALKYL/ARYL ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR SELECTED PHTHALIC ACID ESTERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS PREPARED BY THE ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. CINCINNATI. OH FOR THE OFFICE OF WATER. WASHINGTON. DC.

BIS(CHLOROMETHYL) ETHER **000542-88-1**

005077 KUSCHNER. M. S LASKIN. RT DREW. ET AL 1975. INHALATION CARCINOGENICITY OF ALPHA HALO ETHERS: III. LIFETIME AND LIMITED PERIOD INHALATION STUDIES WITH BIS(CHLOROMETHYL) ETHER AT 0 1 PPM. ARCH ENVIRON HEALTH. 30(2)· 73-77

US EPA 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

BROMODICHLOROMETHANE **000075-27-4**

005148 NTP (NATIONAL TOXICOLOGY PROGRAM) 1987. NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF BROMODICHLOROMETHANE (CAS NO 75-27-4) IN F344 RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP. RESEARCH TRIANGLE PARK. NC. NTP TR 321 US DEPT OF HEALTH AND HUMAN SERVICES. PUBLIC HEALTH SERVICE. NATIONAL INSTITUTE OF HEALTH.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR TRIHALOGENATED METHANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH. FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC ECAO-CIN-H083

US EPA 1992 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

BROMOETHENE / (VINYL BROMIDE) **000593-60-2**

010094 BENYA TJ. WM BASEY. MA DORATO AND PE BERTEAU 1982 INHALATION CARCINOGENICITY BIOASSAY OF VINYL BROMIDE IN RATS TOXICOL APPL PHARMACOL 64 367-379.

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMOETHENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC

BROMOFORM 000075-25-2

005150 NTP (NATIONAL TOXICOLOGY PROGRAM). 1988. TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF TRIHALOMETHANE (BROMOFORM) (CAS NO 75-25-2) IN F344 RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP-TR 350.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR BROMOFORM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

BUTADIENE, 1,3- 000106-99-0

010477 NTP (NATIONAL TOXICOLOGY PROGRAM). 1984. TOXICOLOGY AND CARCINOGENESIS STUDIES OF 1,3-BUTADIENE (CAS 106-99-0) IN B6C3F1 MICE (INHALATION STUDIES)

US EPA. 1985 MUTAGENICITY AND CARCINOGENICITY ASSESSMENT OF 1,3-BUTADIENE. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, WASHINGTON, DC EPA 600/8-85-004F. NTIS-PB86-12507.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,3-BUTADIENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

BUTYL BENZYL PHTHALATE, N- 000085-68-7

005122 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982 CARCINOGENESIS BIOASSAY OF BUTYLBENZYL PHTHALATE (CAS. NO. 85-68-7) IN F344 RATS AND B6C3F1 MICE (FEED STUDY) NTP TECH REP NTIS PB83-118398, RESEARCH TRIANGLE PARK, NC

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR SELECTED PHTHALIC ACID ESTERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

US EPA. 1991. DRINKING WATER CRITERIA DOCUMENT FOR PHTHALIC ACID ESTERS (PAE)S PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CADMIUM **007440-43-9**

005019 THUN, MJ, TM SCHNORR, AB SMITH AND WE HALPERIN 1985. MORTALITY AMONG A COHORT OF US CADMIUM PRODUCTION WORKERS: AN UPDATE J NATL CANCER INST. 74(2): 325-333.

US EPA 1985 UPDATED MUTAGENICITY AND CARCINOGENICITY ASSESSMENT OF CADMIUM· ADDENDUM TO THE HEALTH ASSESSMENT DOCUMENT FOR CADMIUM. (MAY 1981, EPA 600/8-81-023) EPA 600/8-83-025F

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CAPTAFOL **002425-06-1**

010095 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CAPTAFOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CAPTAN **000133-06-2**

010184 NCI (NATIONAL CANCER INSTITUTE). 1977. BIOASSAY OF CAPTAN FOR POSSIBLE CARCINOGENICITY CAS NO. 133-06-2 NTIS PB-273475.

CHEVRON 1982. UNPUBLISHED STUDY.

BIODYNAMICS. 1983. SUBMITTED CHEVRON CHEMICAL CORPORATION. UNPUBLISHED STUDY.

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CAPTAN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CARBAZOLE **000086-74-8**

010096 TSUDA H, A HAZIWARA, M SHIBATA, M OHSIMA AND N ITO. 1982 CARCINOGENIC EFFECT OF CARBAZOLE IN THE LIVER OF (C57BL/6N X C3G/HEN)F1 MICE J NATL CANCER INST 69: 1383-1389.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CARBAZOLE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CARBON TETRACHLORIDE 000056-23-5

005022 DELLA PORTA, GB, B TERRACINI AND KP SHUBIK. 1961. INDUCTION WITH CARBON TETRACHLORIDE OF LIVER CELL CARCINOMAS IN HAMSTERS J NATL CANCER INST. 26: 855-863

EDWARDS, J, WE HESTON AND HA DALTON 1942 INDUCTION OF THE CARBON TETRACHLORIDE HEPATOMA IN STRAIN L MICE. J NATL CANCER INST. 3 297-301

NCI (NATIONAL CANCER INSTITUTE). 1976. REPORT ON CARCINOGENESIS BIOASSAY OF CHLOROFORM NTIS PB264-018 NCI-CG-TR-3.

US EPA 1984. HEALTH ASSESSMENT DOCUMENT FOR CARBON TETRACHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR CARBON TETRACHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CHLORANIL 000118-75-2

010097 BRL (BIONETICS RESEARCH LABS, INC.) 1968 EVALUATION OF CARCINOGENIC, TERATOGENIC AND MUTAGENIC ACTIVITIES OF SELECTED PESTICIDES AND INDUSTRIAL CHEMICALS. VOLUME I: CARCINOGENIC STUDY NTIS PB 223159.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORANIL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLORDANE 000057-74-9

005024 VELSICOL 1973. EIGHTEEN MONTH ORAL CARCINOGENIC STUDY IN MICE, DECEMBER 14, 1973 MRID NO. 00067568 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460.

NCI (NATIONAL CANCER INSTITUTE) 1977. BIOASSAY OF CHLORDANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 8. ALSO PUBL AS DHEW PUBL NO (NIH) 77-808

US EPA 1988 UPDATED HEALTH EFFECTS ASSESSMENT FOR CHLORDANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986 CARCINOGENICITY ASSESSMENT OF CHLORDANE AND HEPTACHLOR/HEPTACHLOR EPOXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

CHLORO-2-METHYLANILINE HYDROCHLORIDE, 4- 003165-93-3

010419 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL 1978. TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL 2. 325-356.

US EPA 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 4-CHLORO-2-METHYLANILINE AND 4-CHLORO-2-METHYLANILINE HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLORO-2-METHYLANILINE, 4- 000095-69-2

010098 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL 1978. TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL. 2· 325-356.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 4-CHLORO-2-METHYLANILINE AND 4-CHLORO-2-METHYLANILINE HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROBENZILATE 000510-15-6

010848 BRL (BIONETICS RESEARCH LABORATORIES) 1968 EVALUATION OF CARCINOGENIC, TERATOGENIC AND MUTAGENIC ACTIVITIES OF SELECTED AND INDUSTRIAL CHEMICALS I. CARCINOGENIC STUDY. PREPARED FOR NATIONAL CANCER INSTITUTE, REPORT NO NCI DCCP-C6 1973-1-1. NTIS PB-223-157. P 17, 27-31, 35, 39, 56-57, 68.

US EPA 1991. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLOROBENZILATE. PREPARED BY THE OFFICE OF HEATH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHLOROFORM 000067-66-3

005036 JORGENSON, TA, EF MEIERHENRY, CJ RUSHBROOK ET AL. 1985 CARCINOGENICITY OF CHLOROFORM IN DRINKING WATER TO MALE OSBORNE-MENDEL RATS AND FEMALE B6C3F1 MICE FUND APPL TOXICOL(USA). 5(4): 760-769

US EPA. 1988. UPDATED HEALTH EFFECTS ASSESSMENT FOR CHLOROFORM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

005035 NCI (NATIONAL CANCER INSTITUTE). 1976 REPORT ON CARCINOGENESIS BIOASSAY OF CHLOROFORM. NTIS PB264-018.

US EPA 1988 UPDATED HEALTH EFFECTS ASSESSMENT FOR CHLOROFORM. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1985 HEALTH ASSESSMENT DOCUMENT FOR CHLOROFORM PREPARED BY THE OFFICE OF HEALTH AND BENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC.

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CHLOROMETHANE 000074-87-3

005038 CIIT (CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY). 1981 FINAL REPORT ON 24-MONTH INHALATION STUDY ON METHYL CHLORIDE PREPARED BY BATTELLE-COLUMBUS LABORATORIES, COLUMBUS, OH DECEMBER 31.

NIOSH (NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH) 1984 CARCINOGENIC RISK ASSESSMENT FOR OCCUPATIONAL EXPOSURE TO MONOHALOMETHANES NTIS PB85-111623.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR METHYL CHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR CHLOROMETHANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

CHLOROMETHYL METHYL ETHER 000107-30-2

005081 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HALOETHERS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CHLORONITROBENZENE, O- **000088-73-3**

010099 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL 1978 TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY J ENVIRON PATHOL TOXICOL 2 325-356

US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORONITROBENZENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLORONITROBENZENE, P- **000100-00-5**

010100 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL 1978 TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL. 2 325-356.

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLORONITROBENZENES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

CHLOROTHALONIL **001897-45-6**

010384 IRDC 1985 TUMORIGENICITY STUDY IN RATS CHLOROTHALONIL 099-5TX-80-234-008

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROTHALONIL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

CHROMIUM(VI) **018540-29-9**

005091 MANCUSO, TF 1975 INTERNATIONAL CONFERENCE ON HEAVY METALS IN THE ENVIRONMENT, TORONTO, CANADA, OCT 27-31 CITED IN US EPA, 1984

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR HEXAVALENT CHROMIUM ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1984. HEALTH ASSESSMENT DOCUMENT FOR CHROMIUM PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE US ENVIRONMENTAL PROTECTION AGENCY, RESEARCH TRIANGLE PARK, NC

US EPA. 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

CHRYSENE **000218-01-9**

010185 REFER TO IRIS

US EPA. 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

COKE OVEN EMISSIONS **008007-45-2**

005039 MAZUMDAR S, C REDMOND, W SOLLECITO AND N SUSSMAN. 1975 AN EPIDEMIOLOGICAL STUDY OF EXPOSURE TO COAL-TAR-PITCH VOLATILES AMONG COKE OVEN WORKERS. APCA J 25(4) 382-389

LAND, CE. 1976 PRESENTATION AT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HEARINGS ON COKE OVEN STANDARDS.

US EPA. 1984 CARCINOGEN ASSESSMENT OF COKE OVEN EMISSIONS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CREOSOTE, COAL TAR **008001-58-9**

005042 REFER TO IRIS.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CRESOL, M- / (3-METHYLPHENOL) **000108-39-4**

010187 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CRESOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

CRESOL, O- / (2-METHYLPHENOL) **000095-48-7**

010186 US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CRESOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

CRESOL, P- / (4-METHYLPHENOL) **000106-44-5**

010188 US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CRESOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

CROTONALDEHYDE **000123-73-9**

010190 CHUNG, FL, T TAMAKA, SS HECHT 1986. INDUCTION OF LIVER TUMORS IN F344 RATS BY CROTONALDEHYDE CANCER RES. 46: 1285-1289

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CROTONALDEHYDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1991 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

CYANAZINE **021725-46-2**

010944 BOGDANFFY MS 1990. COMBINED CHRONIC TOXICITY/ONCOGENICITY STUDY WITH CYANAZINE (INR-1957) 2-YEAR FEEDING STUDY IN RATS PREPARED BY E I DU PONT DE NEMOURS AND CO

US EPA. 1993 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DDD **000072-54-8**

010291 TOMATIS, L, V TURUSOV, RT CHARLES AND M BOICCHI 1974 EFFECT OF LONG-TERM EXPOSURE TO 1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHYLENE, TO 1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHANE, AND TO THE TWO CHEMICALS COMBINED ON CF-1 MICE. J NATL CANCER INST 52(3): 883-891

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DDE **000072-55-9**

010292 TOMATIS, L, V TURUSOV, RT CHARLES AND M BOICCHI 1974 EFFECT OF LONG-TERM EXPOSURE TO 1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHYLENE, TO 1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHANE, AND TO THE TWO CHEMICALS COMBINED ON CF-1 MICE J NATL CANCER INST 52(3): 883-891

NCI (NATIONAL CANCER INSTITUTE). 1978. BIOASSAY OF DDT, TDE AND P,P'-DDE FOR POSSIBLE CARCINOGENICITY. NCI REPORT NO 131. DHEW PUBL NO (NIH) 78-1386

ROSSI L, O BARBIERI, M SANGUINETI, JRP CABRAL, P BRUZZI AND L SANTI. 1983 CARCINOGENICITY STUDY WITH TECHNICAL-GRADE DDT AND DDE IN HAMSTERS. CANCER RES. 43: 776-781.

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DDT **000050-29-3**

005044 US EPA 1986. THE CARCINOGEN ASSESSMENT GROUP'S EVALUATION OF THE CARCINOGENICITY OF DICOFOL (KELTHANE), DDT, DDE, AND DDD (TDE). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC, FOR THE HAZARD EVALUATION DIVISION, OFFICE OF PESTICIDE PROGRAMS, OFFICE OF PESTICIDES AND TOXIC SUBSTANCES, WASHINGTON, DC.

US EPA 1988. UPDATED HEALTH EFFECTS ASSESSMENT FOR DDT PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC EPA 540/1-86-026.

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DECABROMODIPHENYL ETHER **001163-19-5**

010102 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DECABROMODIPHENYL OXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR BROMINATED DIPHENYL ETHERS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DIALLATE **002303-16-4**

010103 BRL (BIONETICS RESEARCH LABS, INC.) 1968. EVALUATION OF CARCINOGENIC, TERATOGENIC, AND MUTAGENIC ACTIVITIES OF SELECTED PESTICIDES AND INDUSTRIAL CHEMICALS, VOL 1, CARCINOGENIC STUDY PREPARED FOR NATIONAL CANCER INSTITUTE, US DEPARTMENT OF COMMERCE, WASHINGTON, DC. NTIS PB-223159

INNES, JRM, BM ULLAND, MG VALERIO, ET AL 1969. BIOASSAY OF PESTICIDES AND INDUSTRIAL CHEMICALS FOR TUMORIGENICITY IN MICE. A PRELIMINARY NOTE J NATL CANCER INST. 42: 1101-1114.

US EPA 1983. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIALLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC

DIBENZO[A,H]ANTHRACENE **000053-70-3**

010191 REFER TO IRIS

US EPA 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DIBROMO-3-CHLOROPROPANE, 1,2 000096-12-8

010519 NTP (NATIONAL TOXICOLOGY PROGRAM). 1982. CARCINOGENESIS BIOASSAY OF 1,2-DIBROMO-3-CHLOROPROPANE (CAS NO 96-12-8) IN F344 RATS AND B6C3F1 MICE (INHALATION STUDY). NTP-TR-NO 81-21.

US EPA. 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

010484 HAZELTON LABORATORIES, INC 1977. 104 WEEK DIETARY STUDY IN RATS, 1,2-DIBROMO-3-CHLOROPROPANE (DBCP). FINAL REPORT UNPUBLISHED REPORT SUBMITTED TO DOW CHEMICAL CO , MIDLAND, MI. OCTOBER 29, 1977.

US EPA. 1988. DRINKING WATER CRITERIA DOCUMENT FOR DIBROMOCHLOROPROPANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON DC ECAO-CIN-410

US EPA. 1988 ASSESSMENT OF THE CARCINOGENIC POTENTIAL OF 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) PREPARED BY THE CARCINOGEN ASSESSMENT GROUP. AVAILABLE THROUGH RCRA/SUPERFUND DOCKET

DIBROMOCHLOROMETHANE 000124-48-1

010891 NTP (NATIONAL TOXICOLOGY PROGRAM) 1985. TOXICOLOGY AND CARCINOGENESIS STUDIES OF CHLORODIBROMOMETHANE (CAS NO 124-48-1) IN F/344/N RATS AND B6C3F1 MICE NTP TECH REP SER NO 282, DHHS NO NIH 85-2538.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR TRIHALOGENATED METHANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DIBROMOETHANE, 1,2- 000106-93-4

005071 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982 CARCINOGENESIS BIOASSAY OF 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) (CAS NO 106-93-4) IN F344 RATS AND B6C3F1 MICE (INHALATION STUDY). NTP TECH REP SER NO 210, NIH PUBL NO 82-1766

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

005818 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF 1,2-DIBROMOETHANE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS REPORT SERIES NO 86 PB-288-428

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR ETHYLENE DIBROMIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,2-DIBROMOETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE, WASHINGTON, DC.

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DICHLORO-2-BUTENE, 1,4- **000764-41-0**

005053 EI DUPONT DE NEMOURS AND CO. 1986. LONG-TERM INHALATION STUDY WITH 1,4-DICHLOROBUTENE-2 (DCB) IN RATS FINAL REPORT OTS 8(E) FICHE 0509754

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR DICHLOROBUTENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROBENZENE, 1,4- **000106-46-7**

005050 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF 1,4-DICHLOROBENZENE IN F344/N RATS AND B6C3F1 MICE -- GALLEY DRAFT. US DHHS, PHS, NIH TECH REP SER NO 319.

CONTAMINANTS. 1987. FR (JULY 8) 52: 25690-25717

DICHLOROBENZIDINE, 3,3'- **000091-94-1**

005815 STULA, EF, H SHERMAN, JA ZAPP, ET AL. 1975 EXPERIMENTAL NEOPLASIA IN RATS FROM ORAL ADMINISTRATION OF 3,3'-DICHLOROBENZIDINE, 4,4'-METHYLENE-BIS(2-CHLOROANILINE) AND 4,4'-METHYLENE-BIS (2-METHYLANILINE). TOXICOL APPL PHARMACOL. 31 159-175.

US EPA 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DICHLOROETHANE, 1,1- **000075-34-3**

005055 US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR 1,1-DICHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DICHLOROETHANE, 1,2- **000107-06-2**

005058 NCI (NATIONAL CANCER INSTITUTE) 1978. BIOASSAY OF 1,2-DICHLOROETHANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 55. DHEW PUBL NO (NIH) 78-1361.

US EPA 1985 HEALTH ASSESSMENT DOCUMENT FOR 1,2-DICHLOROETHANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, WASHINGTON, DC EPA 600/8-84-006F.

US EPA 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DICHLOROETHYLENE, 1,1- **000075-35-4**

005060 NTP (NATIONAL TOXICOLOGY PROGRAM) 1982 CARCINOGENESIS BIOASSAY OF VINYLIDENE CHLORIDE (CAS NO 75-35-4) IN F344 RATS AND B6C3F1 MICE (GAVAGE STUDY). NTP TECH REP SER NO 228, DHHS NO NIH 82-1784

US EPA 1985. HEALTH ASSESSMENT DOCUMENT FOR VINYLIDENE CHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC

US EPA 1988. UPDATED HEALTH EFFECTS ASSESSMENT FOR 1,1-DICHLOROETHYLENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

005059 MALTONI, C, G LEFEMINE, P CHIECO ET AL. 1985 EXPERIMENTAL RESEARCH ON VINYLIDENE CHLORIDE CARCINOGENESIS IN ARCHIVES OF RESEARCH ON INDUSTRIAL CARCINOGENESIS, VOL 3, C. MALTONI AND M MEHLMAN, ED. PRINCETON SCIENTIFIC PUBLISHERS, PRINCETON, NJ.

US EPA. 1985 HEALTH ASSESSMENT DOCUMENT FOR VINYLIDENE CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DICHLOROPROPANE, 1,2- **000078-87-5**

005062 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 NTP TECHNICAL REPORT ON THE CARCINOGENESIS STUDIES OF 1,2-DICHLOROPROPANE (PROPYLENE DICHLORIDE) (CAS NO. 78-87-5) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP-82-092, NIH PUBL NO 84-2519, NTP TR 263. US DHHS, PHS, NIH. AUGUST, 1986 DRAFT

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR 1,2-DICHLOROPROPANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DICHLOROPROPENE, 1,3- / (TELONE II) 000542-75-6

010946 NTP (NATIONAL TOXICOLOGY PROGRAM). 1985. TOXICOLOGY AND CARCINOGENESIS STUDIES OF TELONE II IN F344/N RATS AND B6C3F1 MICE US DEPT HEALTH AND HUMAN SERVICES, TECH REPORT SER NO 269.

US EPA. 1993. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

US EPA. 1993 REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR 1,3-DICHLOROPROPENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

010104 LOMAX LG, WT STOTT, KA JOHNSON, LL CALHOUN, BL YANO AND JF QUAST. 1989. THE CHRONIC TOXICITY AND ONCOGENICITY OF INHALED TECHNICAL GRADE 1,3-DICHLOROPROPENE IN RATS AND MICE. FUND APPL TOXICOL 12 418-431

US EPA 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,3-DICHLOROPROPENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DIELDRIN 000060-57-1

005816 NCI (NATIONAL CANCER INSTITUTE). 1978 BIOASSAYS OF ALDRIN AND DIELDRIN FOR POSSIBLE CARCINOGENICITY NATIONAL CANCER INSTITUTE CARCINOGEN TECH REP SER NO 22 NCI-CG-TR-22 ALSO PUBL AS DHEW PUBL NO (NIH) 78-882

WALKER, AIT, E THORPE AND DE STEVENSON. 1972 THE TOXICOLOGY OF DIELDRIN (HEOD)· I LONG-TERM ORAL TOXICITY STUDIES IN MICE FOOD COSMET TOXICOL. 11 415-432

MEIERHENREY, EF, BH REUBER, ME GERSHWIN ET AL 1983 DIELDRIN INDUCED MALLORY BODIES IN HEPATIC TUMORS OF MICE OF DIFFERENT STRAINS HEPATOLOGY 3 90-95

TENNEKES, HA, AS WRIGHT, KM DIX AND JH KOEMAN. 1981 EFFECTS OF DIELDRIN, DIET AND BEDDING ON ENZYME FUNCTION AND TUMOR INCIDENCE IN LIVERS OF MALE CF-1 MICE CANCER RES 41 3615-3620

THORPE, E AND AIT WALKER 1973 THE TOXICOLOGY OF DIELDRIN (HEOD). II COMPARATIVE LONG-TERM ORAL TOXICITY STUDIES IN MICE WITH DIELDRIN, DDT, PHENOBARBITONE, BETA-BHC AND GAMMA-BHC FOOD COSMET TOXICOL. 11: 433-442

DAVIS, KJ 1965. PATHOLOGY REPORT ON MICE FED ALDRIN, DIELDRIN, HEPTACHLOR OR HEPATOCHLOR EPOXIDE FOR TWO YEARS INTERNAL FDA MEMORANDUM TO DR AJ LEHMAN, JULY 19

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR DIELDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DIETHYLSTILBESTROL 000056-53-1

010485 GASS, ET AL 1964 CARCINOGENIC DOSE-RESPONSE CURVE TO ORAL DIETHYLSTILBESTEROL J NATL CANCER INST 33 971-977

US EPA 1988. EVALUATION OF THE POTENTIAL CARCINOGENICITY OF DIETHYLSTILBESTEROL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC

DIMETHOXYBENZIDINE, 3,3'- 000119-90-4

010106 SELLAKUMAR AR, R MONTESANO AND A SAFFIOTI 1969 AROMATIC AMINES CARCINOGENICITY IN HAMSTERS PROC AM ASSOC CANCER RES 10 78

OSHA/NIOSH (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION/NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH) 1980 HEALTH HAZARD, ALERT BENZIDINE, O-TOLIDINE AND O-DIANISIDINE BASED DYES. DHHS (NIOSH) PUBL NO 81-106

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 3,3'-DIMETHOXYBENZIDINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIMETHYLANILINE HYDROCHLORIDE, 2,4- 021436-96-4

010108 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL. 1978 TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL. 2 325-356

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2,4-DIMETHYLANILINE AND 2,4-DIMETHYLANILINE HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIMETHYLANILINE, 2,4- 000095-68-1

010107 WEISBURGER EK, AB RUSSFIELD, F HOMBURGER, ET AL. 1978. TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL 2 325-356

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2,4-DIMETHYLANILINE AND 2,4-DIMETHYLANILINE HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

DIMETHYLBENZIDINE, 3,3'- 000119-93-7

010109 GRISWOLD DP JR, AE CASEY, EK WEISBURGER AND JH WEISBURGER. 1968. THE CARCINOGENICITY OF MULTIPLE INTRA-GASTRIC DOSES OF AROMATIC AND HETEROCYCLIC NITRO OR AMINO DERIVATIVES IN YOUNG FEMALE SPRAGUE-DAWLEY RATS CANCER RES. 28(5) 924-933

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 3,3'-DIMETHYLBENZIDINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIMETHYLHYDRAZINE, 1,2- 000540-73-8

010962 TOTH B AND K PATEL 1982. CARCINOGENICITY DOSE RESPONSE STUDY BY CONTINUOUS ADMINISTRATION OF 1,2-DIMETHYL HYDRAZINE DIHYDROCHLORIDE IN MICE I LIGHT AND TRANSMISSION ELECTRON MICROSCOPE STUDY OF COLONIC NEOPLASMS. AM J PATH 84 69-86

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,2-DIMETHYLHYDRAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1989. EVALUATION OF THE POTENTIAL CARCINOGENICITY OF 1,2-DIMETHYLHYDRAZINE PREPARED BY THE CARCINOGEN ASSESSMENT GROUP, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE AND OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIMETHYLSULFATE **000077-78-1**

010112 US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIMETHYL SULFATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA, 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DINITROTOLUENE, 2,4- **000121-14-2**

005066 ELLIS, HV, SH HAGEUSEN, JR JODGSON ET AL 1979 MAMMALIAN TOXICITY OF MUNITIONS COMPOUNDS PHASE III EFFECTS OF LIFETIME EXPOSURE. PART I. 2,4-DINITROTOLUENE. NTIS AD-A077692 281 P.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR 2,4- AND 2,6-DINITROTOLUENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DINITROTOLUENE, 2,6- **000606-20-2**

005068 ELLIS HV, SH HAGUESEN, JR JODGSON, ET AL 1979. MAMMALIAN TOXICITY OF MUNITION COMPOUNDS PHASE III. EFFECTS OF LIFETIME EXPOSURE PART I 2,4-DINITROTOLUENE NTIS AD-A077692. 281 P

US EPA 1987 HEALTH EFFECTS ASSESSMENT FOR 2,4- AND 2,6-DINITROTOLUENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DIOXANE, 1,4- **000123-91-1**

010298 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF 1,4-DIOXANE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS TECH REP SER NO 80 DHEW PUBLICATION NO (NIH) PB-285-711

US EPA 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

DIPHENYLHYDRAZINE, 1,2- 000122-66-7

005070 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF HYDRAZOBENZENE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 92. DHEW PUBL NO (NIH) 78-1342

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR 1,2-DIPHENYLHYDRAZINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 1,2-DIPHENYLHYDRAZINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1980. AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR 1,2-DIPHENYLHYDRAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

DIRECT BLACK 38 001937-37-7

010113 NCI (NATIONAL CANCER INSTITUTE) 1978. 13-WEEK SUBCHRONIC TOXICITY STUDIES ON DIRECT BLUE 6, DIRECT BLACK 38 AND DIRECT BROWN 95 DYES. NCI CARCINOGENESIS TECH REP SER NO 108. P 127

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIRECT BLACK 38 PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIRECT BLUE 6 002602-46-2

010114 NCI (NATIONAL CANCER INSTITUTE) 1978. 13-WEEK SUBCHRONIC TOXICITY STUDIES OF DIRECT BLUE 6, DIRECT BLACK 38, AND DIRECT BROWN 95 DYES. NCI CARCINOGENESIS. TECH REP SER NO. 108. P 127.

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIRECT BLUE 6 PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIRECT BROWN 95 016071-86-6

010115 NCI (NATIONAL CANCER INSTITUTE). 1978 13-WEEK SUBCHRONIC TOXICITY STUDIES OF DIRECT BLUE 6, DIRECT BLACK 38, AND DIRECT BROWN 95 DYES NCI CARCINOGENESIS TECH REP SER NO 108 P 127

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIRECT BROWN 95 PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

DIRECT SKY BLUE 6B 002610-05-1

010116 US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR DIRECT SKY BLUE 6B. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

EPICHLOROHYDRIN 000106-89-8

010117 LASKIN S, AR SELLAKUMAR, M KUSCHNER, ET AL 1980. INHALATION CARCINOGENICITY OF EPICHLOROHYDRIN IN NON-INBRED SPRAGUE-DAWLEY RATS J NATL CANCER INST 65(4): 751-757.

US EPA 1984. HEALTH ASSESSMENT DOCUMENT FOR EPICHLOROHYDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC. EPA 600/8-83-032F NTIS PB85-132363

US EPA. 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR EPICHLOROHYDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

010198 KONISHI, T. A KAWABATA, A DENDA, ET AL. 1980. FORESTOMACH TUMORS INDUCED BY ORALLY ADMINISTERED EPICHLOROHYDRIN IN MALE WISTAR RATS. GANN 71. 922-923.

US EPA. 1984 HEALTH ASSESSMENT DOCUMENT FOR EPICHLOROHYDRIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC EPA 600/8-83-032F NTIS PB85-132363.

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR EPICHLOROHYDRIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

ETHYL ACRYLATE 000140-88-5

010118 NTP (NATIONAL TOXICOLOGY PROGRAM) 1986 CARCINOGENESIS STUDIES OF ETHYL ACRYLATE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES)

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ETHYL ACRYLATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

ETHYLENE OXIDE **000075-21-8**

010421 DUNKELBERG H. 1982 CARCINOGENICITY OF ETHYLENE OXIDE AND 1.2-PROPYLENE OXIDE UPON INTRA-GASTRIC ADMINISTRATION TO RATS. BR J CANCER. 46. 924-933

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR OXIRANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

010422 SNELLINGS WM, CS WEIL AND RR MORONPOT. 1981 FINAL REPORT, ETHYLENE OXIDE, TWO YEAR INHALATION STUDY. SUBMITTED TO THE US ENVIRONMENTAL PROTECTION AGENCY BY BUSHEY RUN RESEARCH CENTER, PITTSBURGH PA.

US EPA. 1985 HEALTH ASSESSMENT DOCUMENT FOR ETHYLENE OXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC EPA 600/8-84-009F NTIS PB86-102597

ETHYLENE THIOUREA **000096-45-7**

010947 NTP (NATIONAL TOXICOLOGY PROGRAM). 1992 NTP TECHNICAL REPORT ON THE PERINATAL TOXICOLOGY AND CARCINOGENESIS STUDIES OF ETHYLENE THIOUREA (CAS NO 96-45-7) IN F344/N RATS AND B6C3F1 MICE (FEED STUDIES) NTP TR 388 US DEPT OF HEALTH AND HUMAN SERVICES. PUBLIC HEALTH SERVICE. NATIONAL INSTITUTES OF HEALTH

US EPA. 1993. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

FOLPET **000133-07-3**

010120 CHEVRON CHEMICAL COMPANY 1982. CHEVRON STUDY LIFETIME ONCOGENICITY FEEDING STUDY OF PHOLTON TECHNICAL (SX-946, FOLPET) IN CD-1 (ICR DERIVED) MICE. AUGUST 24. SOCIAL STUDY NO 1331

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR FOLPET. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

FORMALDEHYDE **000050-00-0**

010121 KERNS ET AL , 1983 CARCINOGENICITY OF FORMALDEHYDE IN RATS AND MICE AFTER LONG-TERM INHALATION EXPOSURE CANCER RES. 43(9) 4382-4392.

US EPA. 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

US EPA 1985. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR FORMALDEHYDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

FURAZOLIDONE **000067-45-8**

005106 US DHEW. 1976 FUROZOLIDONE (NF-180). NOTICE OF OPPORTUNITY FOR HEARING ON PROPOSAL TO WITHDRAW APPROVAL OF CERTAIN NEW ANIMAL DRUG APPLICATIONS. FEDERAL REGISTER. 41 19907-19921.

US DHEW 1976. FUROZOLIDONE, NIHYDRAZONE, FURALTADONE, NITROFURAZONE. WITHDRAWAL OF PROPOSALS AND NOTICE OF PROPOSED RULE MAKING FEDERAL REGISTER 41: 34884-34921.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR NITROFURANS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

FURIUM **000531-82-8**

005108 COHEN, SM, E ERTURK AND GT BRYAN 1970 PRODUCTION OF LEUKEMIA AND STOMACH NEOPLASMS IN SWISS, RF, BALB/C AND C3H FEMALE MICE BY FEEDING N-(4,5-NITRO-2-FURYL-2-THIAZOLYL)ACETAMIDE. CANCER RES 30(9): 2320-2325

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITROFURANS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

GLYCIDALDEHYDE **000765-34-4**

010122 US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR GLYCIDALDEHYDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1991. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEPTACHLOR 000076-44-8

005820 DAVIS K. 1965. PATHOLOGY REPORT ON MICE FED ALDRIN, DIELDRIN, HEPTACHLOR, AND HEPTACHLOR EPOXIDE FOR TWO YEARS. INTERNAL FDA MEMORANDUM TO DR AJ LEHMAN, JULY 19

NCI (NATIONAL CANCER INSTITUTE) 1977 BIOASSAY OF HEPTACHLOR FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGENESIS TECH REP SER NO 9, DHEW NO (NIH) 77-809

EPSTEIN, SS. 1976. CARCINOGENICITY OF HEPTACHLOR AND CHLORDANE SCI TOTAL ENVIRON. 6: 103-154.

REUBER, MD 1977 HISTOPATHOLOGY OF CARCINOMAS OF THE LIVER IN MICE INGESTING HEPTACHLOR OR HEPTACHLOR EPOXIDE EXP CELL BIOL. 45. 147-157

US EPA. 1986 CARCINOGENICITY ASSESSMENT OF CHLORDANE AND HEPTACHLOR/HEPTACHLOR EPOXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC.

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR HEPTACHLOR. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEPTACHLOR EPOXIDE 001024-57-3

010424 DAVIS KJ 1965 PATHOLOGY REPORT ON MICE FED ALDRIN, DIELDRIN, HEPTACHLOR AND HEPTACHLOR EPOXIDE FOR TWO YEARS INTERNAL FDA MEMORANDUM TO DR. A J LEHMAN JULY 19

VELSICOL CHEMICAL CORPORATION 1973, MRID NO 00062678 AVAILABLE FROM EPA WRITE TO FOI, EPA, WASHINGTON, DC 20460

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

HEXACHLOROBENZENE 000118-74-1

010365 ERTURK E, RW LAMBRECHT, HA PETERS, DJ CRIPPS ET AL 1986. ONCOGENICITY OF HEXACHLROBENZENE IN: HEXACHLROBENZENE: PROC INT SYMP, CR MORRIS AND JRP CABRAL, ED IARC SCIENTIFIC PUBL NO 77. OXFORD UNIVERSITY PRESS, OXFORD P 417-423

US EPA 1991 DRINKING WATER CRITERIA DOCUMENT FOR HEXACHLOROBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR HEXACHLOROBENZENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEXACHLOROBUTADIENE 000087-68-3

005088 KOCIBA, RJ, DG KEYS, GC JERSEY, ET AL 1977 RESULTS OF A2-YEAR CHRONIC TOXICITY STUDY WITH HEXACHLOROBUTADIENE IN RATS AM IND HYG ASSOC J 38: 589-602.

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR HEXACHLOROBUTADIENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC

US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR HEXACHLOROBUTADIENE, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

HEXACHLOROCYCLOHEXANE, ALPHA- 000319-84-6

010123 ITO N, H NAGASAKI, M ARIA, ET AL 1973 HISTOLOGICAL AND ULTRASTRUCTURAL STUDIES ON THE HEPATOCARCINOGENICITY OF BENZENE HEXACHLORIDE IN MICE. J NATL CANCER INST 51 817-826

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEXACHLOROCYCLOHEXANE, BETA 000319-85-7

010124 THORPE E AND AIT WALKER 1973 TOXICOLOGY OF DIELDRIN (HEOD) II COMPARATIVE LONG-TERM ORAL TOXICITY STUDIES IN MICE WITH DIELDRIN, DDT, PHENOBARBITONE, BETA-HCH AND GAMMA-HCH FOOD COSMET TOXICOL 11 433-442.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEXACHLOROCYCLOHEXANE, DELTA- 000319-86-8

010125 ITO N, H NAGASAKI, H AOE, ET AL 1975 BRIEF COMMUNICATION. DEVELOPMENT OF HEPATOCELLULAR CARCINOMAS IN RATS TREATED WITH BENZENEHEXACHLORIDE. J NATL CANCER INST. 54: 801-805.

ITO N, H NAGASAKI, M ARIA, ET AL. 1973. HISTOLOGICAL AND ULTRASTRUCTURAL STUDIES ON THE HEPATOCARCINOGENICITY OF BENZENE HEXACHLORIDE IN MICE. J NATL CANCER INST 51. 817-826.

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

HEXACHLOROCYCLOHEXANE, EPSILON- 006108-10-7

010126 GOTO M, M HATTORI, T MIYAGAWA AND M ENOMOTO. 1972 ECOLOGICAL CHEMISTRY. II. HEPATOMA FORMATION IN MICE AFTER ADMINISTRATION OF HIGH DOSES OF HEXACHLOROCYCLOHEXANE ISOMERS. CHEMOSPHERE 1 279-282.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

HEXACHLOROCYCLOHEXANE, GAMMA- 000058-89-9

005098 THORPE, E AND AIT WALKER 1973 THE TOXICOLOGY OF DIELDRIN (HEOD) II. COMPARATIVE LONG-TERM ORAL TOXICITY STUDIES IN MICE WITH DIELDRIN, DDT, PHENOBARBITONE, BETA-BHC AND GAMMA-BHC. FOOD COSMET TOXICOL 11 433-442

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON DC.

US EPA 1984 HEALTH EFFECTS ASSESSMENT FOR LINDANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

HEXACHLOROCYCLOHEXANE-TECHNICAL 000608-73-1

010127 MUNIR KM, CS SOMAN AND V SUMATI 1983 HEXACHLOROCYCLOHEXANE-INDUCED TUMORIGENICITY IN MICE UNDER DIFFERENT EXPERIMENTAL CONDITIONS TUMORIGENICITY 69. 383-386

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HEXACHLOROCYCLOHEXANES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HEXACHLOROETHANE 000067-72-1

005090 NCI (NATIONAL CANCER INSTITUTE) 1978. BIOASSAY OF HEXACHLOROETHANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 68, DHEW NO (NIH) 78-1318.

US EPA. 1989 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR HEXACHLOROETHANE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CHLORINATED ETHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA 1987. HEALTH EFFECTS ASSESSMENT FOR HEXACHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

HYDRAZINE 000302-01-2

010129 BIANCIFIORI C. 1970. HEPATOMAS IN CBA/CB/SE MICE AND LIVER LESIONS IN GOLDEN HAMSTERS INDUCED BY HYDRAZINE SULFATE J NATL CANCER INST 44: 943.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HYDRAZINE AND HYDRAZINE SULFATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

010128 MACEWEN JD, EH VERNOT, CC HAUN, ER KINKEAD AND A HALL, III. 1981 CHRONIC INHALATION TOXICITY OF HYDRAZINE: ONCOGENIC EFFECTS AIR FORCE AEROSPACE MEDICAL RESEARCH LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OH

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HYDRAZINE AND HYDRAZINE SULFATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

HYDRAZINE SULFATE 010034-93-2

010131 BIANCIFIORI C. 1970 HEPATOMAS IN CBA/CB/SE MICE AND LIVER LESIONS IN GOLDEN HAMSTERS INDUCED BY HYDRAZINE SULFATE J NATL CANCER INST 44: 943

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HYDRAZINE AND HYDRAZINE SULFATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

010130 MACEWEN JD, EH VERNOT, CC HAUN, ER KINKEAD AND A HALL, III 1981. CHRONIC INHALATION TOXICITY OF HYDRAZINE: ONCOGENIC EFFECTS AIR FORCE AEROSPACE MEDICAL RESEARCH LABORATORY, WRIGHT-PATTERSON AIR FORCE BASE, OH

US EPA 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR HYDRAZINE AND HYDRAZINE SULFATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

INDENO[1,2,3-CD]PYRENE **000193-39-5**

010192 REFER TO IRIS

US EPA 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

ISOPHORONE **000078-59-1**

005094 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF ISOPHORONE (CAS NO 78-59-1) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). NTP TECH REP SER NO 291. DHHS (NIH)86-2547

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR ISOPHORONE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE. WASHINGTON. DC.

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR ISOPHORONE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC

US EPA. 1992 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

LEAD **007439-92-1**

005096 US EPA. 1989 EVALUATION OF THE POTENTIAL CARCINOGENICITY OF LEAD AND LEAD COMPOUNDS PREPARED BY THE CARCINOGEN ASSESSMENT GROUP. OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. WASHINGTON DC FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON DC

US EPA. 1984. HEALTH EFFECTS ASSESSMENT FOR LEAD. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT. ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE. CINCINNATI. OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE. WASHINGTON. DC.

US EPA 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

LINURON **000330-55-2**

010383 REFER TO IRIS.

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

MERCURIC CHLORIDE **007487-94-7**

010971 NTP (NATIONAL TOXICOLOGY PROGRAM) 1993 TOXICOLOGY AND CARCINOGENESIS STUDIES OF MERCURIC CHLORIDE (CAS NO 7487-94-7) IN F344 RATS AND B3C3F1 MICE (GAVAGE STUDIES) NTP TECHNICAL REPORT SERIES NO. 408. NATIONAL TOXICOLOGY PROGRAM, U.S DEPARTMENT OF HEALTH AND HUMAN SERVICES, PUBLIC HEALTH SERVICE, NATIONAL INSTITUTES OF HEALTH, RESEARCH TRIANGLE PARK, NC

U S. EPA. 1995 MERCURY STUDY REPORT TO CONGRESS. OFFICE OF RESEARCH AND DEVELOPMENT, WASHINGTON, DC. EXTERNAL REVIEW DRAFT EPA/600/P-94/002Ab.

U.S EPA. 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

MERCURY, ELEMENTAL **007439-97-6**

010973 CRAGLE, D L , D.R. HOLLIS, J.R QUALTERS, W G TANKERSLEY AND S A FRY 1984. A MORTALITY STUDY OF MEN EXPOSED TO ELEMENTAL MERCURY J OCCUP MED 26(11). 817-821.

U.S EPA 1995 MERCURY STUDY REPORT TO CONGRESS OFFICE OF RESEARCH AND DEVELOPMENT, WASHINGTON, DC. EXTERNAL REVIEW DRAFT EPA/600/P-94/00Ab.

U.S. EPA. 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

METHOXY-5-NITROANILINE, 2- **000099-59-2**

010132 NCI (NATIONAL CANCER INSTITUTE) 1978. BIOASSAY OF 5-NITRO-O-ANISIDINE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO. 127. 123 P.

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHOXY-5-NITROANILINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYL-5-NITROANILINE, 2- **000099-55-8**

010140 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF 5-NITRO-O-TOLUIDINE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGEN TECH REP SER NO. 107, 102 P.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHYL-5-NITROANILINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYLANILINE HYDROCHLORIDE, 2- **000636-21-5**

010134 HECHT SS, A EL-BOYOUMY, A RIVENSON AND E FIALA 1982 COMPARATIVE CARCINOGENICITY OF O-TOLUIDINE HYDROCHLORIDE AND O-NITROSOTOLUENE IN F-344 RATS. CANCER LETT 16(1): 103-108.

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHYLANILINE AND 2-METHYLANILINE HYDROCHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYLANILINE, 2- **000095-53-4**

010133 HECHT SS, A EL-BOYOUMY, A RIVENSON AND E FIALA. 1982. COMPARATIVE CARCINOGENICITY OF O-TOLUIDINE HYDROCHLORIDE AND O-NITROTOLUENE IN F-344 RATS CANCER LETT 16(1). 103-108.

US EPA. 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-METHYLANILINE AND 2-METHYLANILINE HYDROCHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TOLUIDINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

METHYLENE CHLORIDE / (DICHLOROMETHANE) **000075-09-2**

005100 NCA (NATIONAL COFFEE ASSOCIATION) 1983. TWENTY-FOUR MONTH ONCOGENICITY STUDY OF METHYLENE CHLORIDE IN MICE. PREPARED BY HAZELTON LABORATORIES, AMERICA INC, VIENNA, VA.

NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF DICHLOROMETHANE (METHYLENE CHLORIDE) (CAS NO 75-09-2) IN F344/N RATS AND B6C3F1 MICE (INHALATION STUDIES) NTP TECH REP SER NO 306, DHHS (NIH) 86-2562

US EPA. 1985 ADDENDUM TO THE HEALTH ASSESSMENT DOCUMENT FOR DICHLOROMETHANE (METHYLENE CHLORIDE) UPDATED CARCINOGENICITY ASSESSMENT OF DICHLOROMETHANE (METHYLENE CHLORIDE) OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON, DC

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

005904 NTP (NATIONAL TOXICOLOGY PROGRAM). 1986 TOXICOLOGY AND CARCINOGENESIS STUDIES OF DICHLOROMETHANE (METHYLENE CHLORIDE) (CAS NO 75-09-2) IN F344/N RATS AND B6C3F1 MICE (INHALATION STUDIES). NTP TECH REP SER NO 306, DHHS (NIH) 86-2562

US EPA 1989 UPDATED HEALTH EFFECTS ASSESSMENT FOR METHYLENE CHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

METHYLENE-BIS(2-CHLOROANILINE), 4,4'- 000101-14-4

010425 KOMMINENI C, DH GROTH, IJ FROCKT, RW VOELKER AND RP STANOVICK. 1979 DETERMINATION OF THE TUMORIGENIC POTENTIAL OF METHYLENE-BIS-ORTHO-CHLOROANILINE. J ENVIRON PATH TOXICOL 2(5): 149-171

STULA EF, H SHERMAN, JP ZAPP, JR AND JW CLAYTON. 1975 EXPERIMENTAL NEOPLASIA IN RAT FROM ORAL ADMINISTRATION OF 3,3-DICHLOROBENZIDINE, 4,4-METHYLENE-BIS(2-CHLOROANILINE) AND 4,4-METHYLENE-BIS(2-METHYLANILINE) TOXICOL APPL PHARMACOL. 31(1) 159-176

US EPA. 1990 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 4,4-METHYLENE-BIS(2-CHLOROANILINE) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

METHYLENE-BIS(N,N'-DIMETHYL)ANILINE, 4,4'- 000101-61-1

010137 NCI (NATIONAL CANCER INSTITUTE). 1979 BIOASSAY OF 4,4'-METHYLENE-BIS(N,N'-DIMETHYL)BENZENAMINE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGEN TECH REP SER NO. 186. CAS 101-61-1

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 4,4'-METHYLENE-BIS(N,N'-DIMETHYL)ANILINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

METHYLMERCURY 022967-92-6

010972 TAMASHIRO, H., M ARAKAKI, H. AKAGI, M FUTATSUKA AND L.H ROHT 1984. CAUSES OF DEATH IN MINAMATA DISEASE: ANALYSIS OF DEATH CERTIFICATES INT. ARCH OCCUP. ENVIRON HEALTH 54 135-146.

U S. EPA 1995 MERCURY STUDY REPORT TO CONGRESS. OFFICE OF RESEARCH AND DEVELOPMENT, WASHINGTON, DC EXTERNAL REVIEW DRAFT EPA/600/P-94/002Ab.

U S EPA 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

METOLACHLOR 051218-45-2

010951 US EPA 1993. REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR METOLACHLOR PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC

MIREX 002385-85-5

010952 NTP (NATIONAL TOXICOLOGY PROGRAM) 1990 NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF MIREX (CAS NO 2385-85-5) IN F344/N RATS. (FEED STUDIES) NTP TR 313 US DEPT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH

US EPA 1993 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

NIAGARA BLUE 4B 002429-74-5

010141 US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NIAGARA BLUE 4B PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NICKEL REFINERY DUST

005103 CHOVIL, A, RB SUTHERLAND AND M HALLIDAY 1981 RESPIRATORY CANCER IN A COHORT OF NICKEL SINTER PLANT WORKERS. BR J IND MED. 38. 327-333

PETO, J, H CUCKLE, R DOOL, ET AL 1984 RESPIRATORY CANCER MORTALITY OF WELSH NICKEL REFINERY WORKERS IN NICKEL IN THE HUMAN ENVIRONMENT PROCEEDINGS OF A JOINT SYMPOSIUM, MARCH, 1983 IARC SCIENTIFIC PUBL NO 53, IARC, LYON, FRANCE P 36-46

ENTERLINE, PE AND GM MARSH 1982 MORTALITY AMONG WORKERS IN A NICKEL REFINERY AND ALLOY MANUFACTURING PLANT IN WEST VIRGINIA J NAT CANCER INST 68 925-933

MAGNUS, K, A ANDERSEN AND A HOGETVEIT 1982 CANCER OF RESPIRATORY ORGANS AMONG WORKERS AT A NICKEL REFINERY IN NORWAY INT J CANCER 30 681-685

US EPA 1985 HEALTH ASSESSMENT DOCUMENT FOR NICKEL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

NICKEL SUBSULFIDE 012035-72-2

005768 CHOVIL, A, RB SUTHERLAND AND M HALLIDAY 1981, RESPIRATORY CANCER IN A COHORT OF NICKEL SINTER PLANT WORKERS BR J IND MED 38 327-333

PETO, J, H CUCKLE, R DOOL, ET AL 1984 RESPIRATORY CANCER MORTALITY OF WELSH NICKEL REFINERY WORKERS IN: NICKEL IN THE HUMAN ENVIRONMENT PROCEEDINGS OF A JOINT SYMPOSIUM, MARCH, 1983 IARC SCIENTIFIC PUBL NO 53, IARC, LYON, FRANCE P 36-46

ENTERLINE, PE AND GM MARSH 1982, MORTALITY AMONG WORKERS IN A NICKEL REFINERY AND ALLOY MANUFACTURING PLANT IN WEST VIRGINIA J NAT CANCER INST 68 925-933

MAGNUS, K, A ANDERSEN AND A HOGETVEIT 1982 CANCER OF RESPIRATORY ORGANS AMONG WORKERS AT A NICKEL REFINERY IN NORWAY, INT J CANCER 30 681-685

US EPA 1985 HEALTH ASSESSMENT DOCUMENT FOR NICKEL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, RESEARCH TRIANGLE PARK, NC.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

NITROBENZENE **000098-95-3**

010969 CIIT. 1993 CHRONIC INHALATION TOXICITY STUDY OF NITROBENZENE IN B6C3F1 MICE, FISHER 344 RATS, AND SPRAGUE-DAWLEY CD RATS. CIIT, PO BOX 12137, RESEARCH TRIANGLE PARK, NC, 27709.

US EPA. 1994 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE)

NITROFURAZONE **000059-87-0**

005110 ERTURK, E, JE MORRIS, SM COHEN, ET AL 1970 TRANSPLANTABLE RAT MAMMARY TUMORS INDUCED BY 5-NITRO-2-FURALDEHYDE SEMICARBAZONE AND BY FORMIC ACID 2-[4-(5-NITRO-2-FURYL)-2-THIAZOLYL]HYDRAZIDE. CANCER RES. 30(5): 1409-1412

US EPA 1987. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED NITROFURANS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

NITROPROPANE, 2- **000079-46-9**

010142 LEWIS TR, CE ULRICH AND WM BUSEY 1979 SUBCHRONIC INHALATION TOXICITY OF NITROMETHANE AND 2-NITROPROPANE. J ENVIRON PATHOL TOXICOL 2(5): 233-249

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-NITROPROPANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1988 EVALUATION OF THE POTENTIAL CARCINOGENICITY OF 2-NITROPROPANE. PREPARED BY THE CARCINOGEN ASSESSMENT GROUP, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, WASHINGTON DC, FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON DC.

NITROSO-DI-N-BUTYLAMINE, N- **000924-16-3**

010143 BERTRAM JS AND AW CRAIG 1970 INDUCTION OF BLADDER TUMORS IN MICE WITH DIBUTYLNITROSAMINES BR J CANCER 24: 352-359

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSO-DI-N-PROPYLAMINE, N- 000621-64-7

010147 DRUCKREY H 1967. QUANTITATIVE ASPECTS IN CHEMICAL CARCINOGENS. IN: POTENTIAL CARCINOGENIC HAZARDS FROM DRUGS. UICC MONOGRAPH, SERIES 7. SPRINGER-VERLAG, BERLIN P 60-78.

DRUCKREY H, R PURESSMAN, S IVANKOVIC AND D SCHMAHL 1967. ORGANOTROPIC CARCINOGENIC EFFECT OF 65 DIFFERENT N-NITROSO COMPOUNDS ON BD RATS Z KREBSFORSCH. 69. 103-201.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSO-N-ETHYLUREA, N- 000759-73-9

010426 BULAY, O, SS MIRVISH, H GARCIA, AF PELFRENE, B GOLD AND M EAGAN 1979. CARCINOGENICITY TESTS OF SIX NITROSAMIDES AND NITROSOCYANAMIDE ADMINISTERED ORALLY TO RATS J NATL CANCER INST 62. 1523-1528

US EPA. 1988 EVALUATION OF THE POTENTIAL CARCINOGENICITY OF N-NITROSO-N-ETHYLUREA IN SUPPORT OF REPORTABLE QUANTITY ADJUSTMENTS PURSUANT TO CERCLA SECTION 102. PREPARED BY THE CARCINOGEN ASSESSMENT GROUP, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, WASHINGTON, DC FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSO-N-METHYLUREA, N- 000684-93-5

010427 REDDY, JK AND MS RAO 1975. PANCREATIC ADENOCARCINOMA IN INBRED GUINEA PIGS INDUCED BY N-METHYL-N-NITROSOUREA CANCER RES 35 2269-2277

US EPA. 1988. EVALUATION OF THE POTENTIAL CARCINOGENICITY OF N-NITROSO-N-METHYLUREA IN SUPPORT OF REPORTABLE QUANTITY ADJUSTMENTS PURSUANT TO CERCLA SECTION 102 PREPARED BY THE CARCINOGEN ASSESSMENT GROUP, OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, WASHINGTON, DC FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1992. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSODIETHANOLAMINE, N- 001116-54-7

010144 LIJINSKY W AND RM KOVATCH 1985 INDUCTION OF LIVER TUMORS IN RATS BY NITROSODIETHANOLAMINE AT LOW DOSES. CARCINOGENESIS. 6. 1679-1681.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSODIETHYLAMINE, N- **000055-18-5**

010145 PETO R, R GRAY, P BRANTOM AND P GRASSO. 1984. NITROSAMINE CARCINOGENESIS IN 5120 RODENTS CHRONIC ADMINISTRATION OF 16 DIFFERENT CONCENTRATIONS OF NDEA, NDMA, NPYR AND NPIP IN THE WATER OF 4440 INBRED RATS, WITH PARALLEL STUDIES ON NDEA ALONE OF THE EFFECT OF AGE OF STARTING (3, 6 OR 20 WEEKS) AND OF SPECIES (RATS, MICE OR HAMSTERS). IARC SCI PUBL 57: 627-665.

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSODIMETHYLAMINE, N- **000062-75-9**

010146 PETO R, R GRAY, P BRANTOM AND P GRASSO 1984 NITROSAMINE CARCINOGENESIS IN 5120 RODENTS. CHRONIC ADMINISTRATION OF 16 DIFFERENT CONCENTRATIONS OF NDEA, NDMA, NPYR AND NPIP IN THE WATER OF 4440 INBRED RATS, WITH PARALLEL STUDIES ON NDEA ALONE OF THE EFFECT OF AGE OF STARTING (3, 6 OR 20 WEEKS) AND OF SPECIES (RATS, MICE OR HAMSTERS). IARC SCI PUBL. 57 627-665

US EPA. 1986 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

NITROSODIPHENYLAMINE, N- **000086-30-6**

005112 NCI (NATIONAL CANCER INSTITUTE). 1979 BIOASSAY OF N-NITROSODIPHENYLAMINE (CAS NO 86-30-6) FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 164, NIH 79-1720, NTIS PB 298-275.

US EPA 1986, HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1987. HEALTH EFFECTS ASSESSMENT FOR N-NITROSODIPHENYLAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

NITROSOMETHYLETHYLAMINE, N- 010595-95-6

010148 DRUCKREY H. 1967 QUANTITATIVE ASPECTS IN CHEMICAL CARCINOGENS IN: POTENTIAL CARCINOGENIC HAZARDS FROM DRUGS. UICC MONOGRAPH, SERIES 7 SPRINGER-VERLAG, BERLIN. P 60-78.

DRUCKREY H, R PURESSMAN, S IVANKOVIC AND D SCHMAHL 1967. ORGANOTROPIC CARCINOGENIC EFFECT OF 65 DIFFERENT N-NITROSO COMPOUNDS ON BD RATS. Z KREBSFORSCH. 69· 103-201.

US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

NITROSOMETHYLVINYLAMINE, N **004549-40-0**

010149 DRUCKREY H. 1967. QUANTITATIVE ASPECTS IN CHEMICAL CARCINOGENS IN: POTENTIAL CARCINOGENIC HAZARDS FROM DRUGS UICC MONOGRAPH, SERIES 7. SPRINGER-VERLAG, BERLIN P 60-78

DRUCKREY H, R PURESSMAN, S IVANKOVIC AND D SCHMAHL. 1967. ORGANOTROPIC CARCINOGENIC EFFECT OF 65 DIFFERENT N-NITROSO COMPOUNDS ON BD RATS Z KREBSFORSCH. 69: 103-201

US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR NITROSAMINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1988. EVALUATION OF THE POTENTIAL CARCINOGENICITY OF N-NITROSOMETHYLVINYLAMINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, CARCINOGEN ASSESSMENT GROUP, WASHINGTON DC

NITROSOPYRROLIDINE, N- **000930-55-2**

010300 PREUSSMAN R, D SCHMAHL AND G EISENBRAND. 1977. CARCINOGENICITY OF N-NITROSOPYRROLIDINE: DOSE-RESPONSE STUDY IN RATS Z KREBSFORSCH. 90: 161-166.

US EPA. 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

PARATHION **000056-38-2**

005116 US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR PARATHION PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

PENTABROMO-6-CHLOROCYCLOHEXANE, 1,2,3,4,5- **000087-84-3**

010150 BLAIR EH 1981. TSCA SEC 8(E) SUBMISSION 8E HQ-0381-0393, 88-8100295 BY DOW CHEMICAL CO. OFFICE OF TOXIC SUBSTANCES, US EPA, WASHINGTON, DC.

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 1,2,3,4,5-PENTABROMO-6-CHLOROCYCLOHEXANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

PENTACHLORONITROBENZENE 000082-68-8

010151 INNES, JRM, BM ULLAND, MG VALERIA, ET AL. 1969 BIOASSAY OF PESTICIDES AND INDUSTRIAL CHEMICALS FOR TUMORIGENICITY IN MICE· A PRELIMINARY NOTE. J NATL CANCER INST. 41. 1101-1114.

US EPA. 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PENTACHLORONITROBENZENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

PENTACHLOROPHENOL 000087-86-5

010381 NTP (NATIONAL TOXICOLOGY PROGRAM). 1989 TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF PENTACHLOROPHENOL (CAS NO 87-86-5) IN B6C3F1 MICE (FEED STUDIES) NTP TECH REPORT NO 349 NIH PUBL NO 89-2804.

US EPA 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

PHENYLENEDIAMINE, O- 000095-54-5

010152 WEISBURGER EK, AB RUSSFIELD AND F HOMBURGER, ET AL 1978 TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL 2(2)· 325-356.

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR O-PHENYLENEDIAMINE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

PHENYLPHENOL, 2- 000090-43-7

010153 HIRAGA K AND U FUJII 1981 INDUCTION OF TUMOURS OF THE URINARY SYSTEM IN F344 RATS BY DIETARY ADMINISTRATION OF SODIUM O-PHENYLPHENATE. FOOD COSMET TOXICOL 19(3) 303-310

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2-PHENYLPHENOL PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

POLYBROMINATED BIPHENYLS

010154 NTP (NATIONAL TOXICOLOGY PROGRAM). 1983 CARCINOGENESIS STUDIES OF POLYBROMINATED BIPHENYL MIXTURE IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) FIREMASTER FF-1 CASE NO 67774-32-7. NTP, RESEARCH TRIANGLE PARK, NC

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR POLYBROMINATED BIPHENYLS (PBBS) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

POLYCHLORINATED BIPHENYLS **001336-36-3**

005118 NORBACK, DH, AND RH WELTMAN 1985. POLYCHLORINATED BIPHENYL INDUCTION OF HEPATOCELLULAR CARCINOMA IN THE SPRAGUE-DAWLEY RAT. ENVIRON HEALTH PERSPECT. 60· 97-105.

US EPA. 1990 DRINKING WATER CRITERIA DOCUMENT FOR POLYCHLORINATED BIPHENYLS (PCBS) PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC.

US EPA. 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

PROPYLENE OXIDE **000075-56-9**

010156 DUNKELBERG H. 1982. CARCINOGENICITY OF ETHYLENE OXIDE AND 1,2-PROPYLENE OXIDE UPON INTRAGASTRIC ADMINISTRATION TO RATS BR J CANCER. 46. 924-933

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PROPYLENE OXIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1990 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

010155 NTP (NATIONAL TOXICOLOGY PROGRAM) 1985. TOXICOLOGY AND CARCINOGENESIS STUDIES OF PROPYLENE OXIDE (CAS NO 75-56-9) IN F344/N RATS AND B6C3F1 MICE (INHALATION STUDIES) NTP TECH REP SER NO 267 NTP, RESEARCH TRIANGLE PARK, NC. NIH PUB NO 85-2527.

RENNE RA, WE GIDDENS, GA BOORMAN, R KOVATCH, JE HASEMAN AND WJ CLARKE. 1986 NASAL CAVITY NEOPLASIA IN F344/N RATS AND (C57BL/6XC3H)F1 MICE INHALING PROPYLENE OXIDE FOR UP TO TWO YEARS J NATL CANCER INST 77: 573-582.

US EPA 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

QUINOLINE **000091-22-5**

010158 HIRAO K, Y SHINOHARA, H TSUDA, ET AL 1976. CARCINOGENIC ACTIVITY OF QUINOLINE ON RAT LIVER. CANCER RES 36 329-335

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR QUINOLINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

RDX / (CYCLONITE) **000121-82-4**

010157 LISH PM, BS LEVINE, EM FUREDI, EM SAGARTZ AND VS RAC 1984. DETERMINATION OF THE CHRONIC MAMMALIAN TOXICOLOGICAL EFFECT OF RDX TWENTY FOUR MONTH CHRONIC TOXICITY/CARCINOGENICITY STUDY OF HEXAHYDRA-1,2,5-TRINITRO-1,3,5-TRIAZINE (RDX) IN THE B6C3F1 HYBRID MOUSE. PHASE VI. VOL 1 ITT RESEARCH INSTITUTE, CHICAGO, IL. US ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND. CONTRACT NO DAMD 17-79-C-9161 NTIS AD-A181766.

US EPA 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR RDX (CYCLONITE). PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1988 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

SELENIUM SULFIDE **007446-34-6**

010194 NCI/NTP (NATIONAL CANCER INSTITUTE/NATIONAL TOXICOLOGY PROGRAM) 1980 BIOASSAY OF SELENIUM SULFIDE (GAVAGE) FOR POSSIBLE CARCINOGENICITY. NCI TECHNICAL REPORT SERIES NO. 194. NTP NO. 80-17.

US EPA. 1989. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELENIUM AND COMPOUNDS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

SIMAZINE **000122-34-9**

010195 US EPA. 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR SIMAZINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

SODIUM DIETHYLDITHIOCARBAMATE **000148-18-5**

005126 BRL (BIONETICS RESEARCH LABORATORIES) 1968. EVALUATION OF CARCINOGENIC TERATOGENIC AND MUTAGENIC ACTIVITIES OF SELECTED PESTICIDES ON INDUSTRIAL CHEMICALS. VOL I. CARCINOGENIC STUDY PREPARED FOR NATIONAL CANCER INSTITUTE. US DEPT COMMERCE, NAT TECH INFO SERV, WASHINGTON, DC NTIS PB223159

US EPA 1988 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SODIUM DIETHYLDITHIOCARBAMATE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

STYRENE **000100-42-5**

010480 CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER. (513) 569-7300.

TCDD, 2,3,7,8- **001746-01-6**

005128 KOCIBA, RJ, DG KEYES, JE BOWER ET AL. 1978 RESULTS OF A TWO-YEAR CHRONIC TOXICITY AND ONCOGENICITY STUDY OF 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN IN RATS. TOXICOL APPL PHARMACOL 46(2): 279-303.

US EPA. 1985 HEALTH ASSESSMENT DOCUMENT FOR POLYCHLORINATED DIBENZO-P-DIOXIN. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH. EPA 600/8-84-014F NTIS PB86-122546

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR 2,3,7,8-TCDD. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC.

US EPA 1989 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

TETRACHLOROETHANE, 1,1,1,2- **000630-20-6**

010302 NTP (NATIONAL TOXICOLOGY PROGRAM). 1983 CARCINOGENESIS STUDIES OF 1,1,1,2-TETRACHLOROETHANE (CAS NO 630-20-6) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES) NTP-81-53. N1H PUBL NO 83-1793. NTP TECHNICAL REPORT SERIES NO 237 NTIS, SPRINGFIELD, VA.

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

US EPA. 1993. REVISED AND UPDATED DRINKING WATER QUANTIFICATION OF TOXICOLOGIC EFFECTS FOR 1,1,1,2-TETRACHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER, WASHINGTON, DC.

TETRACHLOROETHANE, 1,1,2,2- **000079-34-5**

005130 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF 1,1,2,2-TETRACHLOROETHANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 27, DHEW NO (NIH) 78-827

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CHLORINATED ETHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

TETRACHLOROETHYLENE **000127-18-4**

010482 CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER (513) 569-7300

TETRACHLOROTOLUENE, PARA, ALPHA, ALPHA- **005216-25-1**

005028 FUKADA, KS, MATSASHITA AND K TAKEMOTO 1979. CARCINOGENICITY OF P-CHLOROBENZOTRICHLORIDE. PROC OF JAPAN ASSOC OF IND HEALTH. P 330-331

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR SELECTED CHLORINATED TOLUENES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TETRACHLOROVINPHOS / (STIROFOS) **000961-11-5**

010159 NCI (NATIONAL CANCER INSTITUTE) 1978 BIOASSAY OF TETRACHLOROVINPHOS FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGEN TECH REP SER NO 33. NTIS PB278650.

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR STIROFOS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TOLUENE-2,4-DIAMINE **000095-80-7**

010160 NCI (NATIONAL CANCER INSTITUTE) 1979 BIOASSAY OF 2,4-DIAMINOTOLUENE FOR POSSIBLE CARCINOGENICITY. NCI CARCINOGEN TECH REP SER NO. 162

US EPA 1986. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR 2,4-TOLUENEDIAMINE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TOLUIDINE, P- **000106-49-0**

010162 WEISBURGER EK, AB RUSSFIELD AND F HOMBURGER, ET AL 1978. TESTING OF TWENTY-ONE ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY J ENVIRON PATHOL TOXICOL 2(2). 325-356.

US EPA. 1984 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TOLUIDINES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

TOXAPHENE **008001-35-2**

005134 LITTON BIONETICS, INC 1978. CARCINOGENIC EVALUATION IN MICE: TOXAPHENE. PREPARED BY LITTON BIONETICS, INC . KENSINGTON, MD FOR HERCULES, INC, WILMINGTON, DE. LBI PROJECT NO. 20602.

US EPA. 1987 HEALTH EFFECTS ASSESSMENT FOR TOXAPHENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR TOXAPHENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA 1987 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

TRICHLOROANILINE HYDROCHLORIDE, 2,4,6- **033663-50-2**

005142 WEISBURGER, EL, AB RUSSFIELD, R HOMBURGER, ET AL 1978 TESTING OF 21 ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG-TERM TOXICITY OR CARCINOGENICITY J ENVIRON PATHOL TOXICOL, 2, 325-356

US EPA 1987, HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRICHLOROANILINES, PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRICHLOROANILINE, 2,4,6- **000634-93-5**

010487 WEISBURGER, EL, AB RUSSFIELD, F HOMBURGER, ET AL. 1978. TESTING OF 21 ENVIRONMENTAL AROMATIC AMINES OR DERIVATIVES FOR LONG TERM TOXICITY OR CARCINOGENICITY. J ENVIRON PATHOL TOXICOL 2. 325-356

US EPA. 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR TRICHLOROANILINES. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRICHLOROETHANE, 1,1,2- **000079-00-5**

005144 NCI (NATIONAL CANCER INSTITUTE). 1978. BIOASSAY OF 1,1,2-TRICHLOROETHANE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 74, DHEW NO NIH 78-1324.

US EPA. 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CHLORINATED ETHANES PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR 1,1,2-TRICHLOROETHANE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1986 CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

TRICHLOROETHYLENE **000079-01-6**

010483 CONTACT THE SUPERFUND HEALTH RISK TECHNICAL SUPPORT CENTER: (513) 569-7300

TRICHLOROPHENOL, 2,4,6- **000088-06-2**

010428 NCI (NATIONAL CANCER INSTITUTE). 1979. BIOASSAY OF 2,4,6-TRICHLOROPHENOL FOR POSSIBLE CARCINOGENICITY NCI CARCINOGENESIS TECH REP SER NO 155, DHEW NO NIH 79-1711.

US EPA. 1980 AMBIENT WATER QUALITY CRITERIA DOCUMENT FOR CHLORINATED PHENOLS. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF WATER REGULATIONS AND STANDARDS, WASHINGTON, DC.

US EPA. 1984 HEALTH EFFECTS ASSESSMENT FOR 2,4,6-TRICHLOROPHENOL. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA 1987 HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR CHLORINATED PHENOLS PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA. 1989. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

TRICHLOROPROPANE, 1,2,3- **000096-18-4**

010849 NTP (NATIONAL TOXICOLOGY PROGRAM) 1991. NTP TECHNICAL REPORT ON THE TOXICOLOGY AND CARCINOGENESIS STUDIES OF 1,2,3-TRICHLOROPROPANE (CAS NO 96-18-4) IN F344/N RATS AND B6C3F1 MICE (GAVAGE STUDIES). BOARD DRAFT NTP TR 384 NIH PUB NO 91-2839. US DEPT OF HEALTH AND HUMAN SERVICES, PUBLIC HEALTH SERVICE, NIH, RESEARCH TRIANGLE PARK, NC.

US EPA. 1993. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

TRIFLURALIN **001582-09-8**

010163 EMMERSON JL, EC PIERCE, JP MCGRATH, ET AL 1980 THE CHRONIC TOXICITY OF COMPOUND 36352 (TRIFLURALIN) GIVEN AS A COMPOUND OF THE DIET TO FISCHER 344 RATS FOR TWO YEARS. STUDIES R-87 AND R-97 (UNPUBLISHED STUDY RECEIVED SEPTEMBER 18, 1980 UNDER 1471-35, SUBMITTED BY ELANCO PRODUCTS CO , DIVISION OF ELI LILLY AND CO., INDIANAPOLIS, IN).

US EPA 1984. HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TRIFLURALIN PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1987. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

TRIMETHYL PHOSPHATE **000512-56-1**

010164 NCI (NATIONAL CANCER INSTITUTE) 1978. BIOASSAY OF TRIMETHYLPHOSPHATE FOR POSSIBLE CARCINOGENICITY NCI CARCINOGEN TECH REP SER NO 81.

US EPA. 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR TRIMETHYL PHOSPHATE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

TRINITROTOLUENE, 2,4,6- **000118-96-7**

010476 US DOD (DEPARTMENT OF DEFENSE) 1984 AD-A168637. DEFENSE TECHNICAL CENTER. CAMERON STATION, ALEXANDRIA, VA.

US EPA. 1990. HEALTH AND ENVIRONMENTAL EFFECTS DOCUMENT FOR 2,4,6-TRINITROTOLUENE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC.

US EPA. 1988. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP

VINYL CHLORIDE **000075-01-4**

010368 FERON, VJ, CFM HENDRIKSEN, AJ SPEEK, ET AL 1981 LIFESPAN ORAL TOXICITY STUDY OF VINYL CHLORIDE IN RATS. FOOD COSMET TOXICOL 19(3) 317-333

US EPA 1984. HEALTH EFFECTS ASSESSMENT FOR VINYL CHLORIDE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE, WASHINGTON, DC

US EPA. 1985. DRINKING WATER CRITERIA DOCUMENT FOR VINYL CHLORIDE PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI OH FOR THE OFFICE OF DRINKING WATER, WASHINGTON, DC

US EPA. 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

010367 MALTONI, C, G LEFEMINE, A CILIBERTI ET AL 1980 VINYL CHLORIDE CARCINOGENICITY BIOASSAYS (BT PROJECT) AS AN EXPERIMENTAL MODEL FOR RISK IDENTIFICATION AND ASSESSMENT IN ENVIRONMENTAL AND OCCUPATIONAL CARCINOGENESIS EPIDEMIOL ANIM EPIDEMIOL HUM: CAS CHLORURE VINYLE MONOMERE, (REUN CLUB CANCEROG CHIM), 20TH, MEETING DATE 1979, P 11-112. PUBL ESSENT, PARIS, FRANCE.

MALTONI, C, G LEFEMINE, A CILIBERTI ET AL. 1981. CARCINOGENICITY BIOASSAYS OF VINYL CHLORIDE MONOMER A MODEL OF RISK ASSESSMENT ON AN EXPERIMENTAL BASIS. ENVIRON HEALTH PERSPECT. 41: 329

US EPA 1985 HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR CHLOROETHENE. PREPARED BY THE OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE, CINCINNATI, OH FOR THE OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, WASHINGTON, DC

US EPA 1990. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

US EPA. 1994. CARCINOGEN RISK ASSESSMENT VERIFICATION ENDEAVOR (CRAVE) WORK GROUP.

Table 4

Radionuclide Carcinogencity -- Slope Factors
(In Units of Picocuries)

JULY 1997

NOTE: To convert radionuclide slope factors into the International System (SI) activity units of becquerels (Bq), multiply each value in Table 4 by 27.03.

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Actinium (89)	Ac-225	014265-85-1	1.00E+01	D	Y	1.00E-03	1.42E-10	4.16E-09	7.81E-09
	Ac-227	014952-40-0	2.18E+01	Y	Y	1.00E-03	3.52E-10	7.08E-08	2.35E-11
	Ac-227+D	014952-40-0(+D)	2.18E+01	Y	Y	1.00E-03	6.26E-10	7.87E-08	5.97E-07
	Ac-228	014331-83-0	6.13E+00	H	Y	1.00E-03	1.62E-12	3.27E-11	3.28E-06
Americium (95)	Am-241	014596-10-2	4.32E+02	Y	W	1.00E-03	3.28E-10	3.85E-08	4.59E-09
	Am-242	013981-54-9	1.60E+01	H	W	1.00E-03	1.47E-12	1.04E-11	5.76E-09
	Am-242m	013981-54-9(m)	1.52E+02	Y	W	1.00E-03	2.92E-10	3.49E-08	8.76E-11
	Am-243	014993-75-0	7.38E+03	Y	W	1.00E-03	3.27E-10	3.82E-08	2.43E-08
	Am-243+D	014993-75-0(+D)	7.38E+03	Y	W	1.00E-03	3.31E-10	3.82E-08	2.66E-07
Antimony (51)	Sb-122	014374-79-9	2.70E+00	D	W	1.00E-01	8.81E-12	5.46E-12	1.61E-06
	Sb-124	014683-10-4	6.02E+01	D	W	1.00E-01	1.07E-11	1.32E-11	7.35E-06
	Sb-125	014234-35-6	2.77E+00	Y	W	1.00E-01	2.97E-12	5.20E-12	1.34E-06
	Sb-125+D	014234-35-6(+D)	2.77E+00	Y	W	1.00E-01	3.54E-12	5.85E-12	1.34E-06
	Sb-126	015756-32-8	1.24E+01	D	W	1.00E-01	9.73E-12	8.41E-12	1.03E-05
	Sb-126m	015756-32-8(m)	1.90E+01	M	W	1.00E-01	7.28E-14	6.43E-14	5.78E-06
	Sb-127	013968-50-8	3.85E+00	D	W	1.00E-01	8.48E-12	6.05E-12	2.40E-06
	Sb-129	014331-88-5	4.40E+00	H	W	1.00E-01	1.86E-12	8.60E-13	5.56E-06
Argon (18)	Ar-41	014163-25-8	1.83E+00	H	*	---	---	4.71E-16	---

[Table 4 continues on the following page: Refer to Endnotes on the last page]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Astatine (85)	At-217	017239-90-6	3.23E-02	S	D	9.50E-01	8.99E-18	5.14E-16	8.71E-10
Barium (56)	Ba-131	014914-75-1	1.18E+01	D	D	1.00E-01	1.70E-12	4.79E-13	1.27E-06
	Ba-133	013981-41-4	1.05E+01	Y	D	1.00E-01	2.70E-12	4.03E-12	9.15E-07
	Ba-133m	013981-41-4(m)	3.89E+01	H	D	1.00E-01	2.76E-12	5.60E-13	1.00E-07
	Ba-137m	013981-97-0(m)	2.55E+00	M	D	1.00E-01	2.43E-15	1.57E-15	2.21E-06
	Ba-139	014378-25-7	8.31E+01	M	D	1.00E-01	3.04E-13	1.53E-13	8.35E-08
	Ba-140	014798-08-4	1.28E+01	D	D	1.00E-01	1.18E-11	3.17E-12	6.00E-07
Beryllium (4)	Be-7	013966-02-4	5.34E+01	D	Y	5.00E-03	8.64E-14	1.78E-13	1.73E-07
Bismuth (83)	Bi-206	015776-19-9	6.24E+00	D	W	5.00E-02	7 11E-12	5.07E-12	1.20E-05
	Bi-207	013982-38-2	3.34E+01	Y	W	5.00E-02	5.05E-12	9.42E-12	5.49E-06
	Bi-210	014331-79-4	5.01E+00	D	W	5.00E-02	7.29E-12	5 12E-11	0.00E+0
	Bi-211	015229-37-5	2.13E+00	M	W	5.00E-02	1.82E-14	1.74E-12	1.48E-07
	Bi-212	014913-49-6	6 06E+01	M	W	5 00E-02	6.20E-13	3.65E-11	6.67E-07
	Bi-213	015776-20-2	4.57E+01	M	W	5.00E-02	4.40E-13	3.09E-11	4 62E-07
	Bi-214	014733-03-0	1.99E+01	M	W	5.00E-02	1.95E-13	1 46E-11	6 02E-06
Bromine (35)	Br-82	014686-69-2	3.53E+01	H	D	9.50E-01	1.42E-12	7.86E-13	1 01E-05
Cadmium (20)	Cd-109	014109-32-1	4 64E+02	D	Y	5.00E-02	8.01E-12	1.85E-11	5.62E-10
	Cd-115	014336-68-6	5.35E+01	H	Y	5 00E-02	7.29E-12	4.93E-12	7.02E-07

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Cd-115m	014336-68-6(m)	4 46E+01	D	Y	5.00E-02	1.42E-11	1.70E-11	8.55E-08
Calcium (20)	Ca-45	013966-05-7	1.63E+02	D	W	3.00E-01	2.02E-12	2.51E-12	3.88E-18
	Ca-47	001439-99-2	4.54E+00	D	W	3.00E-01	6.66E-12	5.22E-12	4.12E-06
Carbon (6)	C-11	014333-33-6	2.05E+01	M	D	9.50E-01	4.49E-14	3.38E-14	3.61E-06
	C-14	014762-75-5	5.73E+03	Y	*	1.00E+00	1.03E-12	6.99E-15	0.00E+0
	C-15	015929-23-4	2.45E+00	S	D	9.50E-01	6.62E-16	8.06E-16	---
Cerium (58)	Ce-141	013967-74-3	3.25E+01	D	Y	3.00E-04	3.91E-12	4.32E-12	1.41E-07
	Ce-143	014119-19-8	3.30E+01	H	Y	3.00E-04	5.91E-12	3.84E-12	7.32E-07
	Ce-144	014762-78-8	2.84E+02	D	Y	3.00E-04	2.96E-11	1.08E-10	2 58E-08
	Ce-144+D	014762-78-8(+D)	2.84E+02	D	Y	3.00E-04	2.97E-11	1.08E-10	1.56E-07
Cesium (55)	Cs-131	014914-76-2	9.69E+00	D	D	9.50E-01	1.80E-13	1 06E-13	2.34E-09
	Cs-134	013967-70-9	2.06E+00	Y	D	9.50E-01	4.73E-11	2.89E-11	5.88E-06
	Cs-134m	013967-70-9(m)	2.90E+00	H	D	9.50E-01	4.54E-14	3.10E-14	1.96E-08
	Cs-135	015726-30-4	2.30E+06	Y	D	9.50E-01	4.53E-12	2.71E-12	0.00E+0
	Cs-136	014234-29-8	1.32E+01	D	D	9 50E-01	7 74E-12	4.65E-12	8.13E-06
	Cs-137	010045-97-3	3.02E+01	Y	D	9.50E-01	3.16E-11	1.91E-11	0.00E+0
	Cs-137+D	010045-97-3(+D)	3.02E+01	Y	D	9.50E-01	3.16E-11	1.91E-11	2.09E-06
	Cs-138	015758-29-9	3.22E+01	M	D	9.50E-01	1.76E-13	1 30E-13	9.45E-06

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Chlorine (17)	Cl-36	013981-43-6	3.01E+05	Y	D	9.50E-01	2.23E-12	1.30E-12	0.00E+0
	Cl-38	014158-34-0	3.72E+01	M	D	9.50E-01	2.07E-13	1.63E-13	6 47E-06
Chromium (24)	Cr-51	014392-02-0	2.77E+01	D	Y	1.00E-01	1.38E-13	1.74E-13	1.02E-07
Cobalt (27)	Co-57	013981-50-5	2.71E+02	D	Y	3.00E-01	9.71E-13	2.88E-12	2.07E-07
	Co-58	01381-38-9	7.08E+01	D	Y	3.00E-01	2.82E-12	5.17E-12	3.73E-06
	Co-58m	01381-38-9(m)	9.15E+00	H	Y	3.00E-01	9.46E-14	8.90E-14	3.21E-11
	Co-60	010198-40-0	5.27E+00	Y	Y	3.00E-01	1.89E-11	6.88E-11	9.76E-06
Copper (29)	Cu-64	013981-25-4	1.27E+01	H	Y	5.00E-01	5.25E-13	4.18E-13	6.72E-07
Curium (96)	Cm-242	015510-73-3	1.63E+02	D	W	1.00E-03	3.83E-11	3.16E-09	2.34E-11
	Cm-243	015757-87-6	2.85E+01	Y	W	1.00E-03	2.51E-10	2.89E-08	1.71E-07
	Cm-243+D	015757-87-6(+D)	2.85E+01	Y	W	1.00E-03	2.52E-10	2.90E-08	1.72E-07
	Cm-244	013981-15-2	1.81E+01	Y	W	1.00E-03	2.11E-10	2.43E-08	2.07E-11
	Cm-245	015621-76-8	8.50E+03	Y	W	1.00E-03	3.35E-10	3.92E-08	5.51E-08
	Cm-246	015757-90-1	4.75E+03	Y	W	1.00E-03	3.32E-10	3.90E-08	1.81E-11
	Cm-247	015758-32-4	1.56E+07	Y	W	1.00E-03	3 09E-10	3.58E-08	1.03E-06
	Cm-248	015758-33-5	3.39E+05	Y	W	1 00E-03	1 31E-09	1.46E-07	1.47E-11
Dysprosium (66)	Dy-165	013967-64-1	2.33E+00	H	W	3.00E-04	3.26E-13	2.24E-13	6.18E-08
	Dy-166	015840-01-4	8.16E+01	H	W	3.00E-04	9.42E-12	7.82E-12	2 72E-08

[Table 4 continues on the following page. Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Erbium (63)	Er-169	015840-13-8	9.40E+00	D	W	3.00E-04	2.12E-12	1.51E-12	6.52E-12
	Er-171	014391-45-8	7.52E+00	H	W	3.00E-04	1.63E-12	7.50E-13	1.04E-06
Europium (63)	Eu-152	014683-23-9	1.36E+01	Y	W	1.00E-03	5.73E-12	7.91E-11	4.08E-06
	Eu-154	015585-10-1	8.80E+00	Y	W	1.00E-03	9.37E-12	9.15E-11	4.65E-06
	Eu-155	014391-16-3	4.96E+00	Y	W	1.00E-03	1.65E-12	9.60E-12	6.08E-08
	Eu-156	014280-35-4	1 52E+01	D	W	1.00E-03	1.09E-11	9.26E-12	5.40E-06
Fluorine (9)	F-18	013981-56-1	1.10E+02	M	D	9.50E-01	1.09E-13	6.54E-14	3.50E-06
Francium (87)	Fr-221	015756-41-9	4.80E+00	M	D	9.50E-01	1.45E-13	8.02E-12	6.74E-08
	Fr-223	015756-98-6	2.18E+00	M	D	9.50E-01	4.46E-13	5.90E-13	4.17E-08
Gadolinium (64)	Gd-153	014276-65-4	2.42E+02	D	W	3.00E-04	1.32E-12	3.20E-12	7.22E-08
	Gd-159	014041-42-0	1.86E+01	H	W	3.00E-04	2 60E-12	1.24E-12	9.59E-08
Gallium (31)	Ga-67	014119-09-6	3.26E+00	D	W	1.00E-03	8.36E-13	5.14E-13	3.61E-07
	Ga-72	013982-22-4	1.41E+01	H	W	1.00E-03	4.77E-12	2.17E-12	1.12E-05
Germanium (32)	Ge-71	014374-81-3	1.18E+01	D	W	9.50E-01	1 18E-14	5.84E-14	1.56E-11
Gold (79)	Au-196	014914-16-0	6.18E+00	D	Y	1.00E-01	1.30E-12	1.04E-12	1.41E-06
	Au-198	010043-49-0	2.70E+00	D	Y	1.00E-01	5.28E-12	3.64E-12	1.37E-06
Holmium (67)	Ho-166	013967-65-2	2.68E+01	H	W	3.00E-04	7.57E-12	4.06E-12	6 96E-08
Hydrogen (1)	H-3	010028-17-8	1.23E+01	Y	V	1.00E+00	7.15E-14	9.59E-14	0.00E+0

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Indium (49)	In-113m	014885-78-0(m)	1.66E+00	H	W	2.00E-02	8.30E-14	5.77E-14	7.82E-07
	In-114	013981-55-0	7.19E+01	S	W	2.00E-02	4.53E-15	5.81E-15	1.13E-07
	In-114m	013981-55-0(m)	4.95E+01	D	W	2.00E-02	2.06E-11	2.53E-11	2.00E-07
	In-115	014191-71-0	4.60e+15	Y	W	2.00E-02	3.49E-11	2.07E-10	0.00E+0
	In-115m	014191-71-0(m)	4.36E+00	H	W	2.00E-02	3.42E-13	1.75E-13	4.29E-07
Iodine (53)	I-122	018287-75-7	3.62E+00	M	D	9.50E-01	2.16E-14	2.24E-14	3.41E-06
	I-123	015715-08-9	1.31E+01	H	D	9.50E-01	5.42E-13	2.94E-13	2.52E-07
	I-125	014158-31-7	6.01E+01	D	D	9.50E-01	2.58E-11	1.71E-11	2.39E-09
	I-126	014158-32-8	1.29E+01	D	D	9.50E-01	4.82E-11	3.15E-11	1.49E-06
	I-129	015046-84-1	1.57E+07	Y	D	9.50E-01	1.84E-10	1.22E-10	2.69E-09
	I-130	014914-02-4	1.24E+01	H	D	9.50E-01	4.85E-12	2.61E-12	7.93E-06
	I-131	010043-66-0	8.04E+00	D	D	9.50E-01	3.62E-11	2.33E-11	1.25E-06
	I-132	014683-16-0	2.30E+00	H	D	9.50E-01	6.62E-13	3 52E-13	8.75E-06
	I-133	014834-67-4	2.08E+01	H	D	9.50E-01	1.06E-11	6.02E-12	2.20E-06
	I-134	014914-27-3	5.26E+01	M	D	9.50E-01	2 31E-13	1 38E-13	1.02E-05
	I-135	014834-68-5	6.61E+00	H	D	9.50E-01	2.27E-12	1.18E-12	6.23E-06
Iridium (77)	Ir-190	014981-91-0	1.18E+01	D	Y	1.00E-02	4 95E-12	4.49E-12	4.65E-06
	Ir-194	014158-35-1	1.92E+01	H	Y	1.00E-02	7.00E-12	4.18E-12	3.17E-07

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Iron (26)	Fe-55	014681-59-5	2 70E+00	Y	W	1.00E-01	3.51E-13	5 60E-13	0.00E+0
	Fe-59	014596-12-4	4.46E+01	D	W	1.00E-01	5.87E-12	7.08E-12	4.63E-06
Krypton (36)	Kr-83m	013965-98-5(m)	1.83E+00	H	*	---	---	3.48E-17	---
	Kr-85	013983-27-2	1.07E+01	Y	*	---	---	2.87E-16	---
	Kr-85m	013983-27-2(m)	4.48E+00	H	*	---	---	2.75E-16	---
	Kr-87	014809-68-8	7.63E+01	M	*	---	---	1.20E-15	---
	Kr-88	014995-61-0	2.84E+00	H	*	---	---	2.20E-15	---
	Kr-89	016316-03-3	3.16E+00	M	*	---	---	1.61E-15	---
	Kr-90	015741-13-6	3.23E+01	S	*	---	---	1.60E-15	---
Lanthanum (57)	La-140	013981-28-7	4.02E+01	H	W	1.00E-03	9.46E-12	5 10E-12	9.11E-06
Lead (82)	Pb-203	014687-25-3	5.20E+01	H	D	2.00E-01	1.03E-12	3.10E-13	6 40E-07
	Pb-209	014119-30-3	3 25E+00	H	D	2.00E-01	2.09E-13	6.85E-14	0.00E+0
	Pb-210	014255-04-0	2.23E+01	Y	D	2.00E-01	6.75E-10	1.67E-09	1.12E-10
	Pb-210+D	014255-04-0(+D)	2.23E+01	Y	D	2.00E-01	1.01E-09	3.86E-09	1.45E-10
	Pb-211	015816-77-0	3.61E+01	M	D	2.00E-01	3.38E-13	1.03E-11	1.85E-07
	Pb-212	015092-94-1	1.06E+01	H	D	2.00E-01	1.80E-11	3.85E-11	3.00E-07
	Pb-214	015067-28-4	2.68E+01	M	D	2.00E-01	2.94E-13	6.23E-12	7.09E-07
Lutetium (71)	Lu-177	014265-75-9	6.71E+00	D	Y	3.00E-04	2.95E-12	2 20E-12	7.22E-08

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Manganese (25)	Mn-52	014092-99-0	5.59E+00	D	W	1.00E-01	6.01E-12	4.40E-12	1.34E-05
	Mn-54	013966-31-9	3.13E+02	D	W	1.00E-01	1.96E-12	3.69E-12	3.26E-06
	Mn-56	014681-52-8	2.58E+00	H	W	1.00E-01	8.57E-13	5.21E-13	6.95E-06
Mercury (80)	Hg-197	013981-51-6	6.41E+01	H	W	2.00E-02	1.18E-12	6.95E-13	5.47E-08
	Hg-203	013982-78-0	4.66E+01	D	W	2.00E-02	2.64E-12	3.03E-12	6.27E-07
Molybdenum (42)	Mo-99	014119-15-4	6.60E+01	H	Y	8.00E-01	2.27E-12	4.48E-12	5.46E-07
Neodymium (60)	Nd-147	014269-74-0	1.10E+01	D	Y	3.00E-04	5.88E-12	4.84E-12	3.22E-07
	Nd-149	015749-81-2	1.73E+00	H	Y	3.00E-04	4.55E-13	4.22E-13	1.08E-06
Neptunium (93)	Np-236	015700-36-4	1.15E+05	Y	W	1.00E-03	9.31E-13	3.87E-12	9.22E-08
	Np-237	013994-20-2	2.14E+06	Y	W	1.00E-03	2.95E-10	3.45E-08	7.56E-09
	Np-237+D	013994-20-2(+D)	2.14E+06	Y	W	1.00E-03	3.00E-10	3.45E-08	4.62E-07
	Np-238	015766-25-3	2.12E+00	D	W	1.00E-03	4.56E-12	4.68E-12	1.95E-06
	Np-239	013968-59-7	2.36E+00	D	W	1.00E-03	4.27E-12	2.41E-12	2.42E-07
	Np-240	015690-84-3	6.50E+01	M	W	1.00E-03	1.77E-13	1.31E-13	3.65E-06
	Np-240m	015690-84-3(m)	7.40E+00	M	W	1.00E-03	2.42E-14	2.83E-14	1.05E-06
Nickel (28)	Ni-59	014336-70-0	7.50E+04	Y	W	5.00E-02	1.85E-13	4.01E-13	0.00E+0
	Ni-63	013981-37-8	1.00E+02	Y	W	5.00E-02	5.50E-13	1.01E-12	0.00E+0
	Ni-65	014833-49-9	2.52E+00	H	W	5.00E-02	5.62E-13	3.59E-13	2.14E-06

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Niobium (41)	Nb-93m	007440-03-1(m)	1.46E+01	Y	Y	1.00E-02	6.64E-13	4.33E-12	3.64E-11
	Nb-94	014681-63-1	2.03E+04	Y	Y	1 00E-02	6.91E-12	8.20E-11	6.08E-06
	Nb-95	013967-76-5	3.51E+01	D	Y	1.00E-02	2.25E-12	3.11E-12	2.94E-06
	Nb-95m	013967-76-5(m)	8.66E+01	H	Y	1.00E-02	3.06E-12	2.25E-12	8.71E-08
	Nb-97	018496-04-3	7.21E+01	M	Y	1.00E-02	1.75E-13	2.13E-13	2.49E-06
	Nb-97m	018496-04-3(m)	6.00E+01	S	Y	1.00E-02	3.27E-15	3.34E-15	2.78E-06
Osmium (76)	Os-185	015766-50-4	9.36E+01	D	Y	1.00E-02	1 80E-12	4.62E-12	2.45E-06
	Os-191	014119-24-5	1.54E+01	D	Y	1.00E-02	3.04E-12	2.70E-12	8.74E-08
	Os-191m	014119-24-5(m)	1.30E+01	H	Y	1.00E-02	4.95E-13	3.32E-13	3.22E-09
	Os-193	016057-77-5	3.00E+01	H	Y	1.00E-02	4.36E-12	2.68E-12	1.82E-07
Palladium (46)	Pd-100	015690-69-4	3.64E+00	D	Y	5.00E-03	3.74E-12	3.55E-12	---
	Pd-101	015749-54-9	8.48E+00	H	Y	5.00E-03	3.74E-13	2.29E-13	---
	Pd-103	014967-68-1	1.70E+01	D	Y	5.00E-03	1.05E-12	1.08E-12	5.38E-10
	Pd-107	017637-99-9	6.50E+06	Y	Y	5.00E-03	2.09E-13	1.46E-12	0.00E+0
	Pd-109	014981-64-7	1.35E+01	H	Y	5.00E-03	3.33E-12	1.99E-12	2 43E-09
Phosphorus (15)	P-32	014596-37-3	1.43E+01	D	D	8.00E-01	6.11E-12	2.93E-12	0.00E+0
	P-33	015749-66-3	2.54E+01	D	D	8.00E-01	7.81E-13	3.96E-13	0 00E+0
Platinum (78)	Pt-191	015706-36-2	2.71E+00	D	D	1.00E-02	1.50E-12	4.13E-13	6.74E-07

[Table 4 continues on the following page· Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Pt-193	015735-70-3	5.00E+01	Y	D	1.00E-02	1.62E-13	7.89E-14	0.00E+0
	Pt-193m	015735-70-3(m)	4.33E+00	D	D	1.00E-02	2.51E-12	5.76E-13	7.44E-09
	Pt-197	015735-74-7	1.83E+01	H	D	1 00E-02	2.12E-12	4.54E-13	3.15E-08
	Pt-197m	015735-74-7(m)	9.44E+01	M	D	1.00E-02	3.25E-13	1.00E-13	1.65E-07
Plutonium (94)	Pu-236	015411-92-4	2 85E+00	Y	Y	1.00E-03	7.68E-11	1.34E-08	2 32E-11
	Pu-238	013981-16-3	8 78E+01	Y	Y	1.00E-03	2.95E-10	2.74E-08	1.94E-11
	Pu-239	015117-48-3	2.41E+04	Y	Y	1.00E-03	3.16E-10	2.78E-08	1.26E-11
	Pu-240	014119-33-6	6.57E+03	Y	Y	1.00E-03	3.15E-10	2.78E-08	1.87E-11
	Pu-241	014119-32-5	1.44E+01	Y	Y	1.00E-03	5.20E-12	2.81E-10	0.00E+0
	Pu-241+D	014119-32-5(+D)	1.44E+01	Y	Y	1.00E-03	3.33E-10	3.88E-08	4.59E-09
	Pu-242	013982-10-0	3.76E+05	Y	Y	1.00E-03	3.00E-10	2.64E-08	1.55E-11
	Pu-243	015706-37-3	4.96E+00	H	Y	1 00E-03	3 69E-13	2.67E-13	1.89E-08
	Pu-244	014119-34-7	8.26E+07	Y	Y	1 00E-03	3 13E-10	2.67E-08	1.29E-11
	Pu-244+D	014119-34-7(+D)	8.26E+07	Y	Y	1 00E-03	3.19E-10	2.67E-08	3.65E-06
Polonium (84)	Po-210	013981-52-7	1.38E+02	D	W	1.00E-01	3.26E-10	2.14E-09	3 30E-11
	Po-212	015389-34-1	2.98E-07	S	W	1.00E-01	4.51E-23	5.93E-21	0 00E+0
	Po-213	015756-57-7	4.20E-06	S	W	1.00E-01	6.70E-22	7.80E-20	1.18E-10
	Po-214	015735-67-8	1.64E-04	S	W	1.00E-01	2.12E-20	2.77E-18	3 23E-10

[Table 4 continues on the following page. Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Po-215	015706-52-2	1 78E-03	S	W	1.00E-01	4.99E-19	4.48E-17	5.11E-10
	Po-216	015756-58-8	1.46E-01	S	W	1.00E-01	8.79E-17	2 95E-15	5.62E-11
	Po-218	015422-24-9	3 05E+00	M	W	1.00E-01	5.08E-14	3.69E-12	0 00E+0
Potassium (19)	K-40	013966-00-2	1.28E+09	Y	D	9 50E-01	1.25E-11	7.46E-12	6.11E-07
	K-42	014378-21-3	1.24E+01	H	D	9.50E-01	1.29E-12	7.56E-13	1.09E-06
Praseodymium (59)	Pr-142	014191-64-1	1.91E+01	H	Y	3.00E-04	6.98E-12	4.16E-12	2.34E-07
	Pr-143	014981-79-4	1.36E+01	D	Y	3.00E-04	6.60E-12	5.60E-12	3.41E-14
	Pr-144	014119-05-2	1.73E+01	M	Y	3.00E-04	8.08E-14	1.31E-13	1.33E-07
	Pr-144m	014119-05-2(m)	7.20E+00	M	Y	3.00E-04	3 23E-14	5.61E-14	1.85E-09
Promethium (61)	Pm-147	014380-75-7	2.62E+00	Y	Y	3.00E-04	1.41E-12	7.49E-12	6.35E-12
	Pm-148	014683-19-3	5.37E+00	D	Y	3.00E-04	1.44E-11	1.05E-11	2 21E-06
	Pm-148m	014683-19-3(m)	4.13E+01	D	Y	3.00E-04	9.93E-12	2 95E-11	7.32E-06
	Pm-149	015765-31-8	5.31E+01	H	Y	3.00E-04	5.52E-12	3.57E-12	3.65E-08
Protactinium (91)	Pa-231	014331-85-2	3.73E+04	Y	Y	1.00E-03	1.49E-10	2 42E-08	2.71E-08
	Pa-233	013981-14-1	2.70E+01	D	Y	1.00E-03	4.69E-12	4.92E-12	4.54E-07
	Pa-234	015100-28-4	6.70E+00	H	Y	1.00E-03	2.13E-12	1.30E-12	6.60E-06
	Pa-234m	015100-28-4(m)	1.17E+00	M	Y	1.00E-03	4.77E-15	6.27E-15	4.05E-08
Radium (88)	Ra-223	015623-45-7	1.14E+01	D	W	2.00E-01	2.34E-10	3.60E-09	2.44E-07

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure: Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Ra-224	013233-32-4	3.62E+00	D	W	2.00E-01	1 49E-10	2.25E-09	2.48E-08
	Ra-225	013981-53-8	1.48E+01	D	W	2.00E-01	1 57E-10	2.38E-09	1.71E-09
	Ra-226	013982-63-3	1.60E+03	Y	W	2.00E-01	2.95E-10	2.72E-09	1.31E-08
	Ra-226+D	013982-63-3(+D)	1.60E+03	Y	W	2.00E-01	2 96E-10	2.75E-09	6.74E-06
	Ra-228	015262-20-1	5.75E+00	Y	W	2.00E-01	2.46E-10	9.61E-10	0.00E+0
	Ra-228+D	015262-20-1(+D)	5.75E+00	Y	W	2.00E-01	2.48E-10	9.94E-10	3.28E-06
Radon (86)	Rn-219	014835-02-0	3.96E+00	S	*	---	---	6.91E-14	1.72E-07
	Rn-220	022481-48-7	5.56E+01	S	*	---	---	1.92E-13	1.88E-09
	Rn-222+D[1]	014859-67-7(+D)	3.82E+00	D	*	---	---	7.57E-12	---
Rhodium (45)	Rh-103m	007440-16-6(m)	5.61E+01	M	Y	5.00E-02	8.19E-15	1.28E-14	5.85E-11
	Rh-105	014913-89-4	3.54E+01	H	Y	5.00E-02	1.93E-12	1.22E-12	2.49E-07
	Rh-105m	014913-89-4(m)	4.50E+01	S	Y	5.00E-02	1.08E-15	9 25E-16	2.27E-08
	Rh-106	014234-34-5	2.99E+01	S	Y	5.00E-02	3.63E-15	4.62E-15	7.57E-07

[1] To derive the inhalation slope factor for Rn-222+D, EPA's Office of Radiation and Indoor Air (ORIA) uses a slightly different risk model and set of exposure assumptions, including an inhalation rate of 2.2E+04 L/day; 50% equilibrium for decay products; and a risk coefficient of 2.36E-4 cases per working level month (WLM). A more detailed description of ORIA's radon risk assessment methodology is provided in the EPA CRAVE Summary Sheet, *Inhaled Rn-222 and its Short Half-Life Decay Products*.

[Table 4 continues on the following page Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Rubidium (37)	Rb-82	014391-63-0	1.25E+00	M	D	9.50E-01	1.05E-14	1.17E-14	3.89E-06
	Rb-86	014932-53-7	1.87E+01	D	D	9.50E-01	7.12E-12	4.21E-12	3.71E-07
	Rb-87	013982-13-3	4.73e+10	Y	D	9.50E-01	3.68E-12	2.26E-12	0.00E+0
	Rb-88	014928-36-0	1.78E+01	M	D	9.50E-01	1.46E-13	1.36E-13	2.68E-06
	Rb-89	014191-65-2	1.54E+01	M	D	9.50E-01	8.65E-14	6.92E-14	8.47E-06
Ruthenium (44)	Ru-97	015758-35-7	2.90E+00	D	Y	5.00E-02	5.88E-13	4.09E-13	4.52E-07
	Ru-103	013968-53-1	3.94E+01	D	Y	5.00E-02	3.32E-12	4.59E-12	1.70E-06
	Ru-105	014331-95-4	4.44E+00	H	Y	5.00E-02	1.15E-12	8.02E-13	2.88E-06
	Ru-106	013967-48-1	3.68E+02	D	Y	5.00E-02	3.45E-11	1.15E-10	0.00E+0
	Ru-106+D	013967-48-1(+D)	3.68E+02	D	Y	5.00E-02	3.45E-11	1.15E-10	7.57E-07
Samarium (62)	Sm-147	014392-33-7	1.06e+11	Y	W	3.00E-04	2.51E-11	6.93E-09	0.00E+0
	Sm-151	015715-94-3	9.00E+01	Y	W	3.00E-04	4.60E-13	4.63E-12	2.92E-13
	Sm-153	015766-00-4	4.67E+01	H	W	3.00E-04	4.02E-12	2.18E-12	4.65E-08
Scandium (21)	Sc-46	013967-63-0	8.38E+01	D	Y	1.00E-04	5.73E-12	1.31E-11	7.89E-06
	Sc-47	014391-96-9	3.42E+00	D	Y	1.00E-04	2.95E-12	2.01E-12	2.50E-07
	Sc-48	014391-86-7	4.37E+01	H	Y	1.00E-04	6.65E-12	4.20E-12	1.31E-05
Selenium (34)	Se-75	014265-71-5	1.20E+02	D	W	8.00E-01	6.53E-12	4.92E-12	8.89E-07
Silicon (14)	Si-31	014276-49-4	1.57E+02	M	W	1.00E-02	5.04E-13	3.29E-13	3.45E-09

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Silver (47)	Ag-105	014928-14-4	4.13E+01	D	Y	5.00E-02	1.63E-12	2.33E-12	---
	Ag-108	014391-65-2	2.37E+00	M	Y	5.00E-02	6.94E-15	9.43E-15	5.78E-08
	Ag-108m	014391-65-2m	1.27E+02	Y	Y	5.00E-02	6.05E-12	7.02E-11	5.61E-06
	Ag-108m+D	014391-65-2m(+D)	1.27E+02	Y	Y	5.00E-02	6.05E-12	7.02E-11	5.62E-06
	Ag-109m	014378-38-2(m)	3.96E+01	S	Y	5.00E-02	2.71E-16	3.46E-16	1.16E-09
	Ag-110	014391-76-5	2.46E+01	S	Y	5.00E-02	2.44E-15	3.16E-15	1.13E-07
	Ag-110m	014391-76-5(m)	2.50E+02	D	Y	5.00E-02	8.43E-12	3.21E-11	1.05E-05
	Ag-111	157690-04-0	7.46E+00	D	Y	5.00E-02	6.83E-12	5.24E-12	8.51E-08
Sodium (11)	Na-22	013966-32-0	2.60E+00	Y	D	9.50E-01	8.02E-12	4.88E-12	8.18E-06
	Na-24	013982-04-2	1.50E+01	H	D	9.50E-01	1.38E-12	7.51E-13	1.77E-05
Strontium (38)	Sr-82	014809-50-8	2.50E+01	D	D	3.00E-01	2.58E-11	8.87E-12	9.00E-11
	Sr-85	013967-73-2	6.48E+01	D	D	3.00E-01	1.40E-12	1.14E-12	1.54E-06
	Sr-85m	013967-73-2(m)	6.77E+01	M	D	3.00E-01	1.80E-14	7.13E-15	5.24E-07
	Sr-89	014158-27-1	5.06E+01	D	D	3.00E-01	1.03E-11	3.68E-12	5.38E-10
	Sr-90	010098-97-2	2.86E+01	Y	D	3.00E-01	4.09E-11	5.94E-11	0.00E+0
	Sr-90+D	010098-97-2(+D)	2.86E+01	Y	D	3.00E-01	5.59E-11	6.93E-11	0.00E+0
	Sr-91	014331-91-0	9.50E+00	H	D	3.00E-01	2.82E-12	7.79E-13	2.67E-06
	Sr-92	014928-29-1	2.71E+00	H	D	3.00E-01	2.03E-12	4.70E-13	5.20E-06

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Sulfur (16)	S-35	015117-53-0	8.74E+01	D	D	8.00E-01	4.16E-13	1.85E-13	0.00E+0
Tantalum (73)	Ta-182	013982-00-8	1.15E+02	D	Y	1.00E-03	7.03E-12	1.65E-11	4.66E-06
Technetium (43)	Tc-95	014809-56-4	2.00E+01	H	W	8.00E-01	6.81E-14	3.38E-14	2.72E-06
	Tc-95m	014809-56-4(m)	6.10E+01	D	W	8.00E-01	1.24E-12	2.10E-12	2.08E-06
	Tc-96	014808-44-7	4.28E+00	D	W	8.00E-01	2.28E-12	1.94E-12	9.36E-06
	Tc-96m	014808-44-7(m)	5.15E+01	M	W	8.00E-01	2.61E-14	2.26E-14	7.72E-08
	Tc-97	015759-35-0	2.60E+06	Y	W	8.00E-01	1.58E-13	3.44E-13	2.49E-10
	Tc-97m	015759-35-0(m)	8.90E+01	D	W	8.00E-01	1.20E-12	1.96E-12	2.67E-10
	Tc-99	014133-76-7	2.13E+05	Y	W	8.00E-01	1.40E-12	2.89E-12	6.19E-13
	Tc-99m	014133-76-7(m)	6.02E+00	H	W	8.00E-01	5.58E-14	3.49E-14	2.51E-07
Tellurium (52)	Te-125m	014390-73-9(m)	5.80E+01	D	W	2.00E-01	2.51E-12	2.85E-12	2.16E-09
	Te-127	013981-49-2	9.35E+00	H	W	2.00E-01	8.55E-13	4.32E-13	1.62E-08
	Te-127m	013981-49-2(m)	1.09E+02	D	W	2.00E-01	6.01E-12	1.31E-11	7.10E-10
	Te-129	014269-71-7	6.96E+01	M	W	2.00E-01	1.48E-13	1.46E-13	1.46E-07
	Te-129m	014269-71-7(m)	3.36E+01	D	W	2.00E-01	1.17E-11	1.33E-11	6.92E-08
	Te-131	014683-12-6	2.50E+01	M	W	2.00E-01	3.90E-13	2.48E-13	1.35E-06
	Te-131m	014683-12-6(m)	3.00E+01	H	W	2.00E-01	8.81E-12	8.40E-12	5.31E-06
	Te-132	014234-28-7	7.82E+01	H	W	2.00E-01	1.22E-11	8.38E-12	4.31E-07

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Terbium (65)	Tb-158	015759-55-4	1.50E+02	Y	W	3.00E-04	4.20E-12	7.04E-11	---
	Tb-160	013981-29-8	7.23E+01	D	W	3.00E-04	7.62E-12	1.14E-11	4.03E-06
Thallium (81)	Tl-202	015720-57-7	1.22E+01	D	D	9 50E-01	1.01E-12	6.07E-13	1.42E-06
	Tl-204	013968-51-9	3.78E+00	Y	D	9.50E-01	1.97E-12	1.15E-12	8 72E-10
	Tl-208	014913-50-9	3.05E+00	M	D	9.50E-01	1.75E-14	1.36E-14	1.45E-05
	Tl-209	015690-73-0	2.20E+00	M	D	9.50E-01	1.40E-14	1.12E-14	7.83E-06
Thorium (90)	Th-227	015623-47-9	1.87E+01	D	Y	2 00E-04	4.04E-11	4.31E-09	1.74E-07
	Th-228	014274-82-9	1.91E+00	Y	Y	2 00E-04	6 29E-11	9.45E-08	5.28E-10
	Th-228+D	014274-82-9(+D)	1.91E+00	Y	Y	2.00E-04	2 31E-10	9.68E-08	9.94E-07
	Th-229	015594-54-4	7.34E+03	Y	Y	2.00E-04	5.65E-11	7.60E-08	5.94E-08
	Th-229+D	015594-54-4(+D)	7.34E+03	Y	Y	2.00E-04	3.56E-10	8.26E-08	5.99E-07
	Th-230	014269-63-7	7.70E+04	Y	Y	2.00E-04	3.75E-11	1.72E-08	4 40E-11
	Th-231	014932-40-2	2.55E+01	H	Y	2 00E-04	1.79E-12	1.10E-12	2.09E-09
	Th-232	007440-29-1	1 41E+10	Y	Y	2.00E-04	3.28E-11	1.93E-08	1.97E-11
	Th-234	015065-10-8	2 41E+01	D	Y	2.00E-04	1.93E-11	1.90E-11	3.50E-09
Thulium (69)	Tm-170	013981-30-1	1.29E+02	D	W	3.00E-04	7.50E-12	1.10E-11	3 84E-09
	Tm-171	014333-45-0	1.92E+00	Y	W	3.00E-04	5.86E-13	1.84E-12	3 15E-10
Tin (50)	Sn-113	013966-06-8	1 15E+02	D	W	2.00E-02	3.72E-12	6.61E-12	2.96E-09

[Table 4 continues on the following page. Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Sn-121	014683-06-8	2.71E+01	H	W	2.00E-02	1.22E-12	6.13E-13	---
	Sn-121m	014683-06-8(m)	5.55E+01	Y	W	2.00E-02	2.00E-12	7.46E-12	---
	Sn-125	014683-08-0	9.64E+00	D	W	2 00E-02	1.68E-11	1 19E-11	1.21E-06
	Sn-126	015832-50-5	1.00E+05	Y	W	2.00E-02	2.12E-11	4.26E-11	3.32E-08
Tungsten (74)	W-181	015749-46-9	1.21E+02	D	D	3.00E-01	2.72E-13	8.02E-14	2.11E-08
	W-185	014932-41-3	7.51E+01	D	D	3 00E-01	2.04E-12	4.26E-13	5 03E-11
	W-187	014983-48-3	2.38E+01	H	D	3.00E-01	2.46E-12	5.29E-13	1 63E-06
Uranium (92)	U-232	014158-29-3	7.20E+01	Y	Y	5 00E-02	8.12E-11	5.29E-08	3.42E-11
	U-233	013968-55-3	1.59E+05	Y	Y	5.00E-02	4.48E-11	1.41E-08	3.52E-11
	U-234	013966-29-5	2.45E+05	Y	Y	5.00E-02	4.44E-11	1.40E-08	2.14E-11
	U-235	015117-96-1	7.04E+08	Y	Y	5.00E-02	4 52E-11	1 30E-08	2.63E-07
	U-235+D	015117-96-1(+D)	7 04E+08	Y	Y	5.00E-02	4.70E-11	1.30E-08	2 65E-07
	U-236	013982-70-2	2 34E+07	Y	Y	5.00E-02	4.21E-11	1.32E-08	1.72E-11
	U-237	014269-75-1	6.75E+00	D	Y	5.00E-02	3 98E-12	3.12E-12	1.37E-07
	U-238	007440-61-1	4.47E+09	Y	Y	5.00E-02	4.27E-11	1.24E-08	1.50E-11
	U-238+D	007440-61-1(+D)	4.47E+09	Y	Y	5.00E-02	6.20E-11	1.24E-08	5.25E-08
	U-240	015687-53-3	1.41E+01	H	Y	5 00E-02	5.47E-12	3 35E-12	1.09E-10
Vanadium (23)	V-48	014331-97-6	1.60E+01	D	W	1.00E-02	7.56E-12	6.84E-12	1 12E-05

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
Xenon (54)	Xe-122	015151-09-4	2.01E+01	H	*	---	---	3.08E-15	---
	Xe-123	015700-10-4	2.14E+00	H	*	---	---	8 92E-16	---
	Xe-125	013994-18-8	1.68E+01	H	*	---	---	1 20E-15	---
	Xe-127	013994-19-9	3.64E+01	D	*	---	---	4.09E-16	---
	Xe-129m	013965-99-6(m)	8.89E+00	D	*	---	---	5 74E-16	---
	Xe-131m	014683-11-5(m)	1.18E+01	D	*	---	---	4.13E-16	---
	Xe-133	014932-42-4	5.25E+00	D	*	---	---	4.14E-16	---
	Xe-133m	014932-42-4(m)	2.19E+00	D	*	---	---	5.12E-16	---
	Xe-135	014995-62-1	9.11E+00	H	*	---	---	7.45E-16	---
	Xe-135m	014995-62-1(m)	1.54E+01	M	*	---	---	1.88E-16	---
	Xe-137	014835-21-3	3.83E+00	M	*	---	---	1.39E-15	---
	Xe-138	015751-81-2	1.41E+01	M	*	---	---	2.06E-15	---
Yttrium (39)	Y-90	010098-91-6	6.41E+01	H	Y	1.00E-04	1.50E-11	9.90E-12	0 00E+0
	Y-91	014234-24-3	5 85E+01	D	Y	1.00E-04	1.35E-11	1.85E-11	1 41E-08
	Y-91m	014234-24-3(m)	4.97E+01	M	Y	1 00E-04	3.69E-14	2.99E-14	1 90E-06
	Y-92	015751-59-4	3.54E+00	H	Y	1.00E-04	1.95E-12	1.61E-12	9.80E-07
	Y-93	014981-70-5	1.01E+01	H	Y	1.00E-04	5.74E-12	3.48E-12	3.41E-07
Zinc (30)	Zn-65	013982-39-3	2.44E+02	D	Y	5.00E-01	9.93E-12	9.98E-12	2.27E-06

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] JULY 1997
(In Units of Picocuries[b])

Element (Atomic Number)	Isotope[c]	CASRN[d]	Radioactive Half-life[e]		ICRP Lung Class[f]	GI Absorption Factor (f_1)[g]	Slope Factor Lifetime Excess Total Cancer Risk Per Unit Intake or Exposure		
							Ingestion (Risk/pCi)	Inhalation (Risk/pCi)	External Exposure (Risk/yr per pCi/g soil)
	Zn-69	013982-23-5	5 56E+01	M	Y	5.00E-01	6 19E-14	1.04E-13	2.03E-11
	Zn-69m	013982-23-5(m)	1.38E+01	H	Y	5.00E-01	1.52E-12	1.17E-12	1.43E-06
Zirconium (40)	Zr-93	015751-77-6	1.53E+06	Y	W	2.00E-03	5 21E-13	5.26E-12	0.00E+0
	Zr-95	013967-71-0	6.40E+01	D	W	2.00E-03	3.92E-12	6.48E-12	2.81E-06
	Zr-97	014928-30-4	1.69E+01	H	W	2.00E-03	1.04E-11	4.73E-12	6.85E-07

[Table 4 continues on the following page: Refer to Endnotes on the last page.]

Table 4: Radionuclide Carcinogenicity -- Slope Factors[a] (In Units of Picocuries[b])

JULY 1997

ENDNOTES:

[a] EPA classifies all radionuclides as Group A (known human) carcinogens. Radionuclide slope factors are calculated by EPA's Office of Radiation and Indoor Air (ORIA) to assist HEAST users with risk-related evaluations and decision-making at various stages of the remediation process. Ingestion and inhalation slope factors are central estimates in a linear model of the age-averaged, lifetime attributable radiation cancer incidence (fatal and nonfatal cancer) risk per unit of activity inhaled or ingested, expressed as risk/picocurie (pCi). External exposure slope factors are central estimates of the lifetime attributable radiation cancer incidence risk for each year of exposure to external radiation from photon-emitting radionuclides distributed uniformly in a thick layer of soil, and are expressed as risk/yr per pCi/gram of soil. If required, slope factors in Table 4 can be converted into the International System (SI) units of becquerels (1 Bq = 1 nuclear transformation per second) by dividing each inhalation, ingestion, or external exposure value by 27.03. Users can calculate cancer risks using slope factors expressed in either customary units or SI units with equivalent results, provided that they also use air, water and soil concentration values in the same system of units. For a discussion on the derivation of radionuclide slope factors and guidance on their use, refer to the User's Guide section on radionuclide carcinogenicity.

[b] A curie (Ci), the customary unit of activity, is equal to 3.7×10^{10} nuclear transformations per second. 1 picocurie (pCi) = 10^{-12} Ci.

[c] For each radionuclide listed, slope factors correspond to the risks per unit intake or exposure for that radionuclide only, except when marked with a "+D" to indicate that the risks from associated short-lived radioactive decay products (i.e., those decay products with radioactive half-lives less than or equal to 6 months) are also included. Refer to Exhibit 1 in the User's Guide section on radionuclide carcinogenicity for guidance on determining slope factors for partial or complete radioactive decay chains.

[d] Chemical Abstract Service Reference Number (CASRN). For risk calculations involving decay chains, a CASRN should be reported for the parent radionuclide and each chain member.

[e] Radioactive half-life: S = Second, M = Minute, D = Day, Y = Year. For those radionuclides with decay products (+D), half-lives are listed for the parent radionuclide.

[f] Lung clearance classification recommended by the International Commission on Radiological Protection (ICRP): Y = Year, W = Week, D = Day, * = Gas.

[g] Gastrointestinal (GI) absorption factors are the fractional amounts of each radionuclide absorbed across the GI tract into the bloodstream. Lung clearance classifications and GI absorption factors are provided for reference only. Do not use these factors to adjust inhalation or ingestion slope factors. See the User's Guide for instructions.

APPENDIX A: TECHNICAL INFORMATION

I. DATA SOURCES AND SELECTION CRITERIA USED IN HEAST

II. DOSE CONVERSIONS ON HEAST

III. CHEMICAL NAME AND CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER CROSS REFERENCE

IV. EFFECT LEVEL DEFINITIONS

V. NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

APPENDIX A-I

I. DATA SOURCES AND SELECTION CRITERIA USED IN HEAST

A. Description of Sources and Documents Cited in HEAST

1. The Integrated Risk Information System (IRIS)

IRIS is an on-line data base developed by the EPA for compilation of risk assessment and regulatory information on chemicals and physical agents. IRIS is the primary communications mechanism for distribution of health hazard assessment information derived by the various intra-Agency Work Groups. The primary intent of IRIS is to provide guidance to EPA personnel in making risk management decisions. An IRIS chemical file contains a Work Group verified summary of the available information on hazard and dose-response assessment for noncarcinogenic and/or carcinogenic effects for that chemical and is not an extensive toxicologic data base. Risk assessment values placed on IRIS are considered Agency consensus and take precedence over differing risk assessment values from other EPA sources. Each file includes referenced citations and EPA contacts for obtaining further information on any specific chemical or agent. The IRIS data base was made available to State and local governments, as well as to the public, in April 1988.

* Questions concerning IRIS: Call RISK INFORMATION HOTLINE at (513) 569-7254

2. EPA Work Groups and the IRIS Pilot:

Risk assessment values for chemicals currently being considered by EPA, but not yet on IRIS, are included in HEAST. In the past the EPA Reference Dose/Reference Concentration (RfD/RfC) and the Carcinogen Risk Assessment Verification Endeavor (CRAVE) Work Groups used to validate Agency systemic toxicity and carcinogen risk assessments, respectively. These Work Groups are now replaced by the IRIS Pilot which will be responsible for resolving any conflicts regarding toxicity values developed by various Program Offices. The IRIS Pilot peer review panels represent different EPA offices and external scientists experienced in issues related to both the qualitative and quantitative risk assessment of carcinogenic and toxic agents. Values verified by this system must undergo extensive peer review and represent an Agency consensus. Verified risk assessment values or changes are entered into the IRIS data base monthly.

* Questions concerning the IRIS Pilot: Call Amy Mills, NCEA Washington at (202) 260-0569.

3. Office of Research and Development (ORD/National Center for Environmental Assessment (NCEA) OSWER-OAQPS (Office of Solid Waste and Emergency Response-Office of Air Quality Planning and Standards) Documents:

A listing of most ORD/NCEA OSWER-OAQPS documents can be found in the Chemical Assessments and Related Activities (CARA) list (available through NTIS) or in the CERI (Center for Environmental Research Information) Office of Research and Development publications list. The CARA is produced by the National Center for Environmental Assessment (NCEA). All OSWER-OAQPS documents are subject to a minimum of internal EPA peer review or a maximum of EPA/Peer Review Workshop/Science Advisory Board and public comments prior to finalization.

* Information on the availability of OSWER-OAQPS documents can be obtained from the following sources:

All Documents:

Technical Information Staff
National Center for Environmental Assessment (RD-689)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-7345

Published Documents:

Technology Transfer and Support Division, National Risk Management Research Laboratory†
Office of Research and Development
U.S. Environmental Protection Agency
26 W. Martin Luther King Drive
Cincinnati, OH 45268
(513) 569-7562
†Formerly, Center for Environmental Research Information (CERI)

Documents Available Through RCRA/Superfund:

Hotline Number 1-800-424-9346

Documents Available from NTIS:

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
(703) 487-4650

Health Effects Assessments (HEAs): This document series was prepared by the National Center for Environmental Assessment (NCEA-CIN) for the Office of Emergency and Remedial Response (Superfund). HEAs are intended for use by the OERR in evaluating risk for its preliminary assessment process at uncontrolled sites, and for appraising clean-up alternatives in its remedial investigation/feasibility studies. HEAs are brief, quantitatively oriented, preliminary assessment of relevant health effects data. HEAs are subject to internal EPA review by staff within the Office of Health and Environmental Assessment. Final drafts of HEAs become part of the RCRA and Superfund dockets and are available through NTIS. This series has recently been incorporated into the following HEED series.

Health and Environmental Effects Documents (HEEDs): This document series is prepared by the National Center for Environmental Assessment (NCEA-CIN) for the Office of Solid Waste and Emergency Response (OSWER). HEEDs are intended to support listings under the Resource Conservation and Recovery Act (RCRA) as well as to provide health-related limits and goals for emergency and remedial actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Within a HEED, both published literature and information within Agency Program Offices are evaluated as they pertain to potential human health, aquatic life and environmental effects of hazardous waste constituents. Quantitative estimates, including reference doses for chronic and subchronic duration for both inhalation and oral exposures, carcinogenic potency factors, unit risk estimates for air and drinking water, and reportable quantities (RQs) based on chronic toxicity and carcinogenicity are determined when sufficient data are available. HEEDs are subject to internal EPA review by staff within the Office of Health and Environmental Assessment and the Office of Pesticides and Toxic Substances. Final drafts of HEEDs become part of the RCRA and Superfund public dockets and are available through NTIS.

Health and Environmental Effects Profiles (HEEPs): This document series was prepared by the National Center for Environmental Assessment (NCEA-CIN) for the Office of Solid Waste and Emergency Response (OSWER). HEEPs have been superseded by HEEDs since mid-FY87. HEEPs are intended to support listings of hazardous constituents of a wide range of waste streams under Section 3001 of the Resource Conservation and Recovery Act (RCRA), as well as to provide health-related limits for emergency actions under Section 010 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). HEEPs are summaries of the

literature concerning health hazards associated with environmental exposures to chemicals or compounds and are very similar to HEEDs as described above. HEEPs were subject to internal EPA review by staff within the Office of Health and Environmental Assessment. HEEPS are part of the RCRA and CERCLA public dockets. Final drafts are available through NTIS.

Air Quality Criteria Documents (AQCDs): This document series is prepared by the National Center for Environmental Assessment (NCEA-RTP) for the Office of Air and Radiation (OAR). AQCDs are intended to support National Ambient Air Quality Standards (NAAQS) set under Sections 108-110 of the Clean Air Act. These documents are evaluations of the available scientific literature on the potential health effects of air pollutants. AQCDs are subject to internal EPA review by staff within the Office of Health and Environmental Assessment and the Office of Air and Radiation. Further review is conducted by the Science Advisory Board/Clean Air Scientific Advisory Committee, and then, these documents are subject to peer review workshops and public comments. The AQCDs are mandated by the Clean Air Act and are revised at 5-year intervals. AQCDs become part of the OAR public docket and final drafts are available through NTIS.

Health Assessment Documents (HADs): This document series is prepared by the National Center for Environmental Assessment (NCEA-RTP and NCEA-CIN) for the Office of Air and Radiation (OAR). HADs are intended for use by the Office of Air Quality Planning and Standards (OAQPS) to determine possible listing of hazardous air pollutants (HAP) under sections 111 and 112 of the Clean Air Act. These documents are evaluations of the available scientific literature on the potential health effects of air pollutants and serve as the scientific data base for establishing relationships between exposure concentrations and potential health risks. HADs are subject to internal EPA review by staff within the Office of Health and Environmental Assessment and the Office of Air and Radiation. Further review is conducted by the Science Advisory Board/Clean Air Scientific Advisory Committee, and then, these documents are subject to peer review workshops and public comments. HADs become part of the OAR public docket and final drafts are available through NTIS.

4. Miscellaneous Documents:

Drinking Water Criteria Documents (DWCDs): The National Center for Environmental Assessment (NCEA-CIN) prepares a portion of this document series for the Office of Water (OW). DWCDs are intended to assist the OW in deriving criteria standards for chemicals in drinking water, as required under Section 412(b)(3)(A) of the Safe Drinking Water Act, as amended in 1986. The DWCDs are comprehensive evaluations of potential health effects, including mechanisms of toxicity, with specific emphasis on data providing dose-response information. DWCDs contain Health Advisories (Has) for 1-day, 10-day and longer-term exposures and drinking water equivalent levels for

lifetime exposures. DWCDs are subject to internal EPA review by staff within the Office of Health and Environmental Assessment and the Office of Water. Selected documents are reviewed by the Science Advisory Board and are subject to peer review workshops and public comments. DWCDs become part of the Safe Drinking Water (SDW) public docket and final drafts are available through NTIS.

B. Selection Criteria and Sources of HEAST Values

Chemicals with derived noncarcinogenic and/or carcinogen risk assessment values that have had some level of peer review (i.e., those in peer reviewed EPA documents or under review by EPA Work Groups) are included in HEAST; this does not include many interim values (values not found in final EPA documents or not being considered by Work Groups) derived for various purposes within Superfund and other Program Offices. In updating the HEAST, the first source that is checked is the Integrated Risk Information System (IRIS) for revised or newly added risk assessment values. Secondly, the status of chemicals under discussion by the RfD/RfC and CRAVE Work Groups is reviewed. The National Center for Environmental Assessment's Chemical Assessments and Related Activities (CARA) list is also reviewed for new Office of Water, Office of Air Quality Planning and Standards, and Office of Solid Waste and Emergency Response risk assessment documents (HEEDs, HEEPs, HEAs, HADs, AQCDs, DWCDs).

The HEAST also contains chemicals commonly found at RCRA (Resource Conservation and Recovery Act) sites as identified by the Office of Solid Waste's Technical Assessment Branch. Questions about RCRA chemicals may be addressed by calling the Health Assessment Section (Office of Solid Waste) at (202) 260-4761. Finally, the Office of Radiation Programs provides data on radionuclides for Table 4 of the HEAST. Radionuclides included are those thought to be most commonly encountered at Superfund sites. Questions concerning radionuclides carcinogenicity should first be addressed by contacting the appropriate Regional Radiation Program Manager. A listing of these managers and several contacts in the Office of Radiation Programs can be found in Exhibit 2 of the User's Guide -Radionuclide Carcinogenicity.

APPENDIX A-II

APPENDIX A-II

II. DOSE CONVERSIONS ON HEAST

In January 1991, the decision was made to replace inhalation Reference Doses (RfDi) for noncancer toxicity and inhalation slope factors for carcinogenicity, previously available on the IRIS data base, with Reference Concentrations (RFC) and inhalation unit risks, respectively. RfCs and unit risks are expressed in terms of concentration in air (mg/m^3), not in terms of "dose" (mg/kg-day) like the RfDs and the oral and inhalation slope factors. This presents a problem for the Superfund program, since the current Hazard Ranking System (HRS) and the Risk Assessment Guidance for superfund (RAGS): Human Health Evaluation manual, Parts A and B were developed using chronic daily intakes and health criteria expressed in units of mg/kg-day.

The decision to replace inhalation slope factors and RfDi values expressed in mg/kg-day with unit risk and RfC values expressed in mg/m_3 was based on two major factors: 1) the workgroups felt that it was technically more accurate to base toxicity values directly on measured air concentrations instead of making the metabolic pharmacokinetic and/or surface area adjustments required to estimate an "internal dose"; and 2) there are compounds that elicit route-of-entry effects (e.g., sensitizers and irritants) where the toxic effect is to the respiratory system or exchange boundary where a measure of "internal dose" might inappropriately imply effects to other organ systems or effects from other exposure routes.

Superfund recognizes the importance of these issues and is actively working with EPA's Office of Research and Development to evaluate the impact of these changes on its program regulations and guidance. In the short term, however, modification of program regulations and guidance is not a viable option. Therefore, the chairs of the RfD/RfC and CRAVE Work Groups were consulted regarding Superfund's need to make the conversion from a concentration in air to dose. There was agreement that, in many cases, converting the air concentration data to a dose (in mg/kg-day) may not add significant uncertainty to the Superfund risk assessment process, and therefore may be a reasonable use of the data given appropriate circumstances and Superfund program objectives.

Generally, the Superfund Health Risk Technical Support Center will be responsible for making all appropriate conversions and the values will be identified with appropriate highlights or footnotes in the Health Effects Assessment Summary Tables (HEAST). Therefore, HEAST users are strongly advised against making such conversions themselves. However, it is a critical responsibility of the risk assessor to consult the original reports cited in the HEAST and to appropriately characterize or caveat the resulting risk estimates derived from these values so that managers are fully informed of their origin and related uncertainties.

APPENDIX A-III

III. CHEMICAL NAME AND CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER CROSS REFERENCE

This section lists chemicals and their respective Chemical Abstracts Service Registry Number (CASRN) for cross referencing. Chemicals may be searched either alphabetically by compound name or numerically by the CASRN.

The list has been updated to only include chemicals that are currently documented in this issue of the HEAST.

CHEMICAL NAME AND CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER CROSS REFERENCE
(LISTED BY NAME)

July 1997

ACENAPHTHENE	000083-32-9	BENZIDINE	000092-87-5	CHLORAL	000075-87-6
ACENAPTHYLENE	000208-96-8	BENZOIC ACID	000065-85-0	CHLORANIL	000118-75-2
ACEPHATE	030560-19-1	BENZOTRICHLORIDE	000098-07-7	CHLORDANE	000057-74-9
ACETONE	000067-64-1	BENZO[A]ANTHRACENE	000056-55-3	CHLORINE CYANIDE	000506-77-4
ACETONE CYANOHYDRIN	000075-86-5	BENZO[A]PYRENE	000050-32-8	CHLORO-1,3-BUTADIENE, 2- / (CHLOROPRENE)	000126-99-8
ACETONITRILE	000075-05-8	BENZO[K]FLUORANTHENE	000207-08-9		
ACETOPHENONE	000098-86-2	BENZYL ALCOHOL	000100-51-6	CHLORO-2-METHYLANILINE, 4-	000095-69-2
ACROLEIN	000107-02-8	BENZYL CHLORIDE	000100-44-7	CHLORO-2-METHYLANILINE HYDROCHLORIDE, 4-	003165-93-3
ACRYLAMIDE	000079-06-1	BERYLLIUM	007440-41-7		
ACRYLIC ACID	000079-10-7	BIPHENYL, 1,1'	000092-52-4	CHLORO-M-CRESOL, P-	000059-50-7
ACRYLONITRILE	000107-13-1	BIS(2-CHLOROETHYL) ETHER	000111-44-4	CHLOROACETALDEHYDE	000107-20-0
ADIPONITRILE	000111-69-3	BIS(2-CHLOROISOPROPYL) ETHER	039638-32-9	CHLOROACETIC ACID	000079-11-8
ALACHLOR	015972-60-8	BIS(2-CHLORO-1-METHYLETHYL) ETHER	000108-60-1	CHLOROANILINE, 2-	000095-51-2
ALDICARB	000116-06-3	BIS(2-ETHYLHEXYL) PHTHALATE / (DEHP)	000117-81-7	CHLOROANILINE, 3-	000108-42-9
ALDRIN	000309-00-2	BIS(CHLOROMETHYL) ETHER	000542-88-1	CHLOROANILINE, 4-	000106-47-8
ALLIDOCHLOR	000093-71-0	BISPHENOL A	000080-05-7	CHLOROBENZENE	000108-90-7
ALLYL ALCOHOL	000107-18-6	BORON, ELEMENTAL	007440-42-8	CHLOROBENZILATE	000510-15-6
ALLYL CHLORIDE	000107-05-1	BORON TRIFLUORIDE	007637-07-2	CHLOROBENZOIC ACID, P-	000074-11-3
ALUMINUM	007429-90-5	BROMINATED DIBENZO-P-DIOXINS	NO CASRN	CHLOROBENZOTRIFLUORIDE, 4-	000098-56-6
ALUMINUM PHOSPHIDE	020859-73-8	BROMINATED DIBENZOFURANS	NO CASRN	CHLOROBUTANE, 1-	000109-69-3
AMETRYN	000834-12-8	BROMOACETONE	000598-31-2	CHLOROBUTANE, 2-	000078-86-4
AMINO-2-NAPHTHOL, 1-	002834-92-6	BROMOCHLOROETHANES	NO CASRN	CHLOROCYCLOPENTADIENE	041851-50-7
AMINO-2-NAPHTOL HYDROCHLORIDE, 1-	001198-27-2	BROMODICHLOROMETHANE	000075-27-4	CHLOROFORM	000067-66-3
AMINOPHENOL, M-	000591-27-5	BROMOETHENE / (VINYL BROMIDE)	000593-60-2	CHLOROMETHANE / (METHYL CHLORIDE)	000074-87-3
AMINOPHENOL, O-	000095-55-6	BROMOFORM	000075-25-2	CHLOROMETHYL METHYL ETHER	000107-30-2
AMINOPHENOL, P-	000123-30-8	BROMOMETHANE	000074-83-9	CHLORONITROBENZENE, M-	000121-73-3
AMINOPYRIDINE, 4-	000504-24-5	BROMOPHENYL PHENYL ETHER, 4-	000101-55-3	CHLORONITROBENZENE, O-	000088-73-3
AMMONIA	007664-41-7	BROMOPHOS	002104-96-3	CHLORONITROBENZENE, P-	000100-00-5
ANILINE	000062-53-3	BROMOXYNIL	001689-84-5	CHLOROPHENOL, 2-	000095-57-8
ANTHRACENE	000120-12-7	BROMOXYNIL OCTANOATE	001689-99-2	CHLOROPHENOL, 3-	000108-43-0
ANTIMONY, METALLIC	007440-36-0	BUSAN 77	031512-74-0	CHLOROPHENOL, 4-	000106-48-9
ANTIMONY PENTOXIDE	001314-60-9	BUSAN 90	002491-38-5	CHLOROPRENE	000126-99-8
ANTIMONY POTASSIUM TARTRATE	000304-61-0	BUTADIENE, 1,3-	000106-99-0	CHLOROPROPANE, 2-	000075-29-6
ANTIMONY TETROXIDE	001332-81-6	BUTANOL, 1-	000071-36-3	CHLOROTHALONIL	001897-45-6
ANTIMONY TRIOXIDE	001309-64-4	BUTYL BENZYL PHTHALATE, N-	000085-68-7	CHLOROTOLUENE, M-	000108-41-8
ARAMITE	000140-57-8	BUTYLATE	002008-41-5	CHLOROTOLUENE, O-	000095-49-8
AROCLOR 1248	012672-29-6	BUTYLCHLORIDE, T-	000507-20-0	CHLOROTOLUENE, P-	000106-43-4
AROCLOR 1254	011097-69-1	BUTYROLACTONE, GAMMA-	000096-48-0	CHLORPYRIFOS	002921-88-2
ARSENIC, INORGANIC	007440-38-2	CACODYLIC ACID	000075-60-5	CHLORPYRIFOS METHYL	005598-13-0
ASBESTOS	001332-21-4	CADMIUM	007440-43-9	CHLORTHIOPHOS	060238-56-4
ATRAZINE	001912-24-9	CALCIUM CYANIDE	000592-01-8	CHROMIUM(III)	016065-83-1
AZOBENZENE	000103-33-3	CAPROLACTAM	000105-60-2	CHROMIUM(VI)	018540-29-9
BARIUM	007440-39-3	CAPTAFOL	002425-06-1	CHRYSENE	000218-01-9
BARIUM CYANIDE	000542-62-1	CAPTAN	000133-06-2	COKE OVEN EMISSIONS	008007-45-2
BENEFIN	001861-40-1	CARBARYL	000063-25-2	COPPER	007440-50-8
BENZAL CHLORIDE	000098-87-3	CARBAZOLE	000086-74-8	COPPER CYANIDE	000544-92-3
BENZALDEHYDE	000100-52-7	CARBOFURAN	001563-66-2	CREOSOTE, COAL TAR	008001-58-9
BENZALDEHYDE CYANOHYDRIN	000532-28-5	CARBON DISULFIDE	000075-15-0	CRESOL, M- / (3-METHYLPHENOL)	000108-39-4
BENZENE	000071-43-2	CARBON MONOXIDE	000630-05-0	CRESOL, O- / (2-METHYLPHENOL)	000095-48-7
BENZENETHIOL / (THIOPHENOL)	000108-98-5	CARBON TETRACHLORIDE	000056-23-5	CRESOL, P- / (4-METHYLPHENOL)	000106-44-5

CROTONALDEHYDE	000123-73-9
CUMENE	000098-82-8
CYANAZINE	021725-46-2
CYANIDE	000057-12-5
CYANOGEN	000460-19-5
CYANOGEN BROMIDE	000506-68-3
CYCLOATE	001134-23-2
CYCLOHEXANOL	000108-93-0
CYCLOHEXYLAMINE	000108-91-8
CYCLONITE	000121-82-4
CYCLOPENTADIENE	000542-92-7
DACTHAL	001861-32-1
DALAPON	000075-99-0
2,4-DB	000094-82-6
DDD	000072-54-8
DDE	000072-55-9
DDT	000050-29-3
DECABROMODIPHENYL ETHER	001163-19-5
DEHP	000117-81-7
DI-N-OCTYL PHTHALATE	000117-84-0
DIALLATE	002303-16-4
DIAZINON	000333-41-5
DIBENZOFURAN	000132-64-9
DIBENZO[A,H]ANTHRACENE	000053-70-3
DIBROMO-3-CHLOROPROPANE, 1,2	000096-12-8
DIBROMOBENZENE, 1,4-	000106-37-6
DIBROMOCHLOROMETHANE	000124-48-1
DIBROMOETHANE, 1,2-	000106-93-4
DIBUTYL PHTHALATE	000084-74-2
DICAMBA	001918-00-9
DICHLORO-2-BUTENE, 1,4-	000764-41-0
DICHLOROBENZENE, 1,2-	000095-50-1
DICHLOROBENZENE, 1,3-	000541-73-1
DICHLOROBENZENE, 1,4-	000106-46-7
DICHLOROBENZIDINE, 3,3'-	000091-94-1
DICHLOROBUTENES	NO CASRN
DICHLORODIFLUOROMETHANE	000075-71-8
DICHLOROETHANE, 1,1-	000075-34-3
DICHLOROETHYLENE, 1,1-	000075-35-4
DICHLOROETHYLENE, 1,2- (MIXED ISOMERS)	000540-59-0
DICHLOROETHYLENE, 1,2-C-	000156-59-2
DICHLOROETHYLENE, 1,2-T-	000156-60-5
DICHLOROMETHANE	000075-09-2
DICHLOROPHENOL, 2,3-	000576-24-9
DICHLOROPHENOL, 2,4-	000120-83-2
DICHLOROPHENOL, 2,5-	000583-78-8
DICHLOROPHENOL, 2,6-	000087-65-0
DICHLOROPHENOL, 3,4-	000095-77-2
DICHLOROPHENOL, 3,5-	000591-35-5
DICHLOROPHENOXY ACETIC ACID, 2,4-	000094-75-7
DICHLOROPHENOXY) BUTYRIC ACID, 4-(2,4- / (2,4-DB)	000094-82-6
DICHLOROPROPANE, 1,1-	000078-99-9
DICHLOROPROPANE, 1,2-	000078-87-5
DICHLOROPROPANE, 1,3-	000142-28-9
DICHLOROPROPANE, 2,2-	000594-20-7
DICHLOROPROPENE, 1,3- / (TELONE II)	000542-75-6
DICHLORPROP	000120-36-5
DICYCLOPENTADIENE	000077-73-6
DIELDRIN	000060-57-1
DIETHYL-P-NITROPHENYL PHOSPHATE	000311-45-5
DIETHYL PHTHALATE	000084-66-2
DIETHYLANILINE, N,N-	000091-66-7
DIETHYLENE GLYCOL MONOBUTYL ETHER	000112-34-5
DIETHYLENE GLYCOL MONOETHYL ETHER	000111-90-0
DIETHYLFORMAMIDE	000617-84-5
DIETHYLHYDRAZINE, 1,2-	001615-80-1
DIETHYLSTILBESTROL	000056-53-1
DIMETHOATE	000060-51-5
DIMETHOXYBENZIDINE, 3,3'-	000119-90-4
DIMETHYLANILINE, 2,4-	000095-68-1
DIMETHYLANILINE HYDROCHLORIDE, 2,4-	021436-96-4
DIMETHYLANILINE, N,N-	000121-69-7
DIMETHYLBENZIDINE, 3,3'-	000119-93-7
DIMETHYLFORMAMIDE, N,N-	000068-12-2
DIMETHYLHYDRAZINE, 1,1-	000057-14-7
DIMETHYLHYDRAZINE, 1,2-	000540-73-8
DIMETHYLPHENOL, 2,3-	000526-75-0
DIMETHYLPHENOL, 2,4-	000105-67-9
DIMETHYLPHENOL, 2,5-	000095-87-4
DIMETHYLPHENOL, 2,6-	000576-26-1
DIMETHYLPHENOL, 3,4-	000095-65-8
DIMETHYLPHTHALATE	000131-11-3
DIMETHYLSULFATE	000077-78-1
DIMETHYLTEREPHTHALATE	000120-61-6
DIMETHYLUREA, N,N-	000598-94-7
DINITRO-O-CRESOL, 4,6-	000534-52-1
DINITRO-P-CRESOL, 2,6-	000609-93-8
DINITROBENZENE, 1,2-	000528-29-0
DINITROBENZENE, 1,3-	000099-65-0
DINITROBENZENE, 1,4-	000100-25-4
DINITROPHENOL, 2,3-	000066-56-8
DINITROPHENOL, 2,4-	000051-28-5
DINITROPHENOL, 2,5-	000329-71-5
DINITROPHENOL, 2,6-	000573-56-8
DINITROPHENOL, 3,5-	000586-11-8
DINITROTOLUENE, 2,3-	000602-01-7
DINITROTOLUENE, 2,4	000121-14-2
DINITROTOLUENE, 2,5-	000619-15-8
DINITROTOLUENE, 2,6-	000606-20-2
DINITROTOLUENE, 3,4-	000610-39-9
DINOSEB	000088-85-7
DIOXANE, 1,4-	000123-91-1
DIPHENYLAMINE, N,N-	000122-39-4
DIPHENYLHYDRAZINE, 1,2-	000122-66-7
DIPHENYLMETHANE DIISOCYANATE	000101-68-8
DIRECT BLACK 38	001937-37-7
DIRECT BLUE 6	002602-46-2
DIRECT BROWN 95	016071-86-6
DIRECT LIGHTFAST BLUE	004399-55-7
DIRECT SKY BLUE 6B	002610-05-1
DISULFOTON	000298-04-4
ENDOSULFAN	000115-29-7
ENDOTHALL	000145-73-3
ENDRIN	000072-20-8
EPICHLOROHYDRIN	000106-89-8
EPTC	000759-94-4
ETHOPROP	013194-48-4
ETHOXYETHANOL, 2-	000110-80-5
ETHOXYETHANOL ACETATE, 2-	000111-15-9
ETHOXYETHANOL ACRYLATE, 2-	000106-74-1
ETHOXYETHANOL DODECANOATE, 2-	000106-13-8
ETHOXYETHANOL PHOSPHATE, 2-	068554-00-7
ETHOXYETHYL METHACRYLATE, 2-	002370-63-0
ETHYL ACETATE	000141-78-6
ETHYL ACRYLATE	000140-88-5
ETHYL BENZENE	000100-41-4
ETHYL CHLORIDE	000075-00-3
ETHYL ETHER	000060-29-7
ETHYL METHACRYLATE	000097-63-2
ETHYL-O-XYLENE, 4-	000934-80-5
ETHYLANILINE, N-	000103-69-5
ETHYLENE CYANOHYDRIN	000109-78-4
ETHYLENE DIAMINE	000107-15-3
ETHYLENE GLYCOL	000107-21-1
ETHYLENE GLYCOL MONOBUTYL ETHER	000111-76-2
ETHYLENE OXIDE	000075-21-8
ETHYLENE THIOUREA	000096-45-7
ETHYLTOLUENE, M-	000620-14-4
ETHYLTOLUENE, O-	000611-14-3
ETHYLTOLUENE, P-	000622-96-8
FLUORANTHENE	000206-44-0
FLUORENE	000086-73-7
FLUORINE / (SOLUBLE FLUORIDE)	007782-41-4
FLURIDONE	059756-60-4
FOLPET	000133-07-3

CHEMICAL NAME AND CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER CROSS REFERENCE
(LISTED BY NAME) Continued

July 1997

FORMALDEHYDE	000050-00-0
FORMALDEHYDE CYANOHYDRIN	000107-16-4
FORMIC ACID	000064-18-6
FURAN	000110-00-9
FURAZOLIDONE	000067-45-8
FURFURAL	000098-01-1
FURIUM	000531-82-8
GLYCIDALDEHYDE	000765-34-4
HEPTACHLOR	000076-44-8
HEPTACHLOR EPOXIDE	001024-57-3
HEPTANE, N-	000142-82-5
HEXABROMOBENZENE	000087-82-1
HEXACHLOROBENZENE	000118-74-1
HEXACHLOROBUTADIENE	000087-68-3
HEXACHLOROCYCLOHEXANE, ALPHA-	000319-84-6
HEXACHLOROCYCLOHEXANE, BETA-	000319-85-7
HEXACHLOROCYCLOHEXANE, DELTA-	000319-86-8
HEXACHLOROCYCLOHEXANE, EPSILON-	006108-10-7
HEXACHLOROCYCLOHEXANE, GAMMA-	000058-89-9
HEXACHLOROCYCLOHEXANE-TECHNICAL	000608-73-1
HEXACHLOROCYCLOPENTADIENE	000077-47-4
HEXACHLOROETHANE	000067-72-1
HEXACHLOROPHENE	000070-30-4
HEXAMETHYLENE DIAMINE	000124-09-4
HEXANE, N-	000110-54-3
HEXANONE, 2-	000591-78-6
HYDRAZINE	000302-01-2
HYDRAZINE SULFATE	010034-93-2
HYDROGEN SULFIDE	007783-06-4
HYDROQUINONE	000123-31-9
INDENO[1,2,3-CD]PYRENE	000193-39-5
IRON	007439-89-6
ISOBUTYL ALCOHOL	000078-83-1
ISOPHORONE	000078-59-1
ISOPROPALIN	033820-53-0
LACTONITRILE	000078-97-7
LEAD	007439-92-1
LEAD ALKYLS	NO CASRN
LINURON	000330-55-2
MALATHION	000121-75-5
MALEIC ANHYDRIDE	000108-31-6
MALEIC HYDRAZIDE	000123-33-1
MALONONITRILE	000109-77-3
MANCOZEB	008018-01-7
MANEB	012427-38-2
MANGANESE	007439-96-5
MEPHOSFOLAN	000950-10-7
MERCURIC CHLORIDE	007487-94-7
MERCURY, ELEMENTAL	007439-97-6
MERPHOS	000150-50-5
MERPHOS OXIDE	000078-48-8
METHACRYLONITRILE	000126-98-7
METHANOL	000067-56-1
METHOMYL	016752-77-5
METHOXY-5-NITROANILINE, 2-	000099-59-2
METHOXYCHLOR	000072-43-5
METHOXYETHANOL, 2-	000109-86-4
METHOXYETHANOL ACETATE, 2-	000110-49-6
METHYL-4-CHLOROPHENOXY) BUTYRIC ACID, 4-(2-	000094-81-5
METHYL-4-CHLOROPHENOXY) PROPIONIC ACID, 2-(2-	000093-65-2
METHYL-4-CHLOROPHENOXY ACETIC ACID, 2-	000094-74-6
METHYL-5-NITROANILINE, 2-	000099-55-8
METHYL ACETATE	000079-20-9
METHYL ACRYLATE	000096-33-3
METHYL CHLORIDE	000074-87-3
METHYL CHLOROCARBONATE	000079-22-1
METHYL ETHYL KETONE	000078-93-3
METHYL ETHYL KETONE PEROXIDE	001338-23-4
METHYL HYDRAZINE	000060-34-4
METHYL ISOBUTYL KETONE	000108-10-1
METHYL ISOCYANATE	000624-83-9
METHYL MERCURY	022967-92-6
METHYL METHACRYLATE	000080-62-6
METHYL PARATHION	000298-00-0
METHYL STYRENE (MIXED ISOMERS)	025013-15-4
METHYL STYRENE, ALPHA	000098-83-9
METHYLANILINE, 2-	000095-53-4
METHYLANILINE HYDROCHLORIDE, 2-	000636-21-5
METHYLCYCLOHEXANE	000108-87-2
METHYLENE-BIS(2-CHLOROANILINE), 4,4'-	000101-14-4
METHYLENE-BIS(N,N'-DIMETHYL)ANILINE, 4,4'-	000101-61-1
METHYLENE BROMIDE	000074-95-3
METHYLENE CHLORIDE / (DICHLOROMETHANE)	000075-09-2
METHYLENE-BIS(BENZENEAMINE), 4,4- / (METHYLENE DIANILINE, 4,4-)	000101-77-9
METHYLENEDIPHENYL ISOCYANATE, 4,4- / (DIPHENYLMETHANE DIISOCYANATE)	000101-68-8
2-METHYLLACTONITRILE	000075-86-5
2-METHYLPHENOL	000095-48-7
3-METHYLPHENOL	000108-39-4
4-METHYLPHENOL	000106-44-5
METOLACHLOR	051218-45-2
METRIBUZIN	021087-64-9
MIREX	002385-85-5
MOLINATE	002212-67-1
MOLYBDENUM	007439-98-7
MONOCHLORAMINE	010599-90-3
NAPHTHALENE	000091-20-3
NAPHTHOQUINONE, 1,4-	000130-15-4
NIAGARA BLUE 4B	002429-74-5
NICKEL CYANIDE	000557-19-7
NICKEL, REFINERY DUST	NO CASRN
NICKEL, SOLUBLE SALTS	Various
NICKEL SUBSULFIDE	012035-72-2
NICOTINONITRILE	000100-54-9
NITRIC OXIDE	010102-43-9
NITRITE	014797-65-0
NITROANILINE, 2-	000088-74-4
NITROANILINE, M-	000099-09-2
NITROANILINE, P-	000100-01-6
NITROBENZENE	000098-95-3
NITROFURANTOIN	000067-20-9
NITROFURAZONE	000059-87-0
NITROGEN DIOXIDE	010102-44-0
NITROGEN OXIDES	NO CASRN
NITROMETHANE	000075-52-5
NITROPHENOLS	NO CASRN
NITROPROPANE, 2-	000079-46-9
NITROSO-DI-N-BUTYLAMINE, N-	000924-16-3
NITROSO-DI-N-PROPYLAMINE, N-	000621-64-7
NITROSO-N-ETHYLUREA, N-	000759-73-9
NITROSO-N-METHYLUREA, N-	000684-93-5
NITROSODIETHANOLAMINE, N-	001116-54-7
NITROSODIETHYLAMINE, N-	000055-18-5
NITROSODIMETHYLAMINE, N-	000062-75-9
NITROSODIPHENYLAMINE, P-	000156-10-5
NITROSODIPHENYLAMINE, N-	000086-30-6
NITROSOMETHYLETHYLAMINE, N-	010595-95-6
NITROSOMETHYLVINYLAMINE, N	004549-40-0
NITROSOPYRROLIDINE, N-	000930-55-2
NITROTOLUENE, M-	000099-08-1
NITROTOLUENE, O-	000088-72-2
NITROTOLUENE, P-	000099-99-0
OCTABROMODIPHENYL ETHER	032536-52-0
OCTAMETHYLPYROPHOSPHORAMIDE	000152-16-9
OSMIUM TETROXIDE	020816-12-0
OZONE	010028-15-6
PARALDEHYDE	000123-63-7
PARATHION	000056-38-2
PARTICULATE MATTER	NO CASRN
PEBULATE	001114-71-2

PENDIMETHALIN	040487-42-1
PENTABROMO-6-CHLOROCYCLOHEXANE, 1,2,3,4,5-	000087-84-3
PENTABROMODIPHENYL ETHER	032534-81-9
PENTACHLOROBENZENE	000608-93-5
PENTACHLOROCYCLOPENTADIENE	025329-35-5
PENTACHLORONITROBENZENE	000082-68-8
PENTACHLOROPHENOL	000087-86-5
PENTACHLOROPROPENE, 1,1,2,3,3,-	001600-37-9
PENTANE, N-	000109-66-0
PHENANTHRENE	000085-01-8
PHENOL	000108-95-2
PHENYLENEDIAMINE, M-	000108-45-2
PHENYLENEDIAMINE, O-	000095-54-5
PHENYLENEDIAMINE, P-	000106-50-3
PHENYLMERCURIC ACETATE	000062-38-4
PHENYLPHENOL, 2-	000090-43-7
PHORATE	000298-02-2
PHOSGENE	000075-44-5
PHOSPHINE	007803-51-2
PHOSPHORUS, WHITE	007723-14-0
PHOTOCHEMICAL OXIDANTS	NO CASRN
PHTHALIC ACID, M-	000121-91-5
PHTHALIC ACID, O-	000088-99-3
PHTHALIC ACID, P-	000100-21-0
PHTHALIC ANHYDRIDE	000085-44-9
POLYBROMINATED BIPHENYLS	NO CASRN
POLYCHLORINATED BIPHENYLS	001336-36-3
POTASSIUM CYANIDE	000151-50-8
POTASSIUM SILVER CYANIDE	000506-61-6
PROFLURALIN	026399-36-0
PRONAMIDE	023950-58-5
PROPACHLOR	001918-16-7
PROPAZINE	000139-40-2
PROPIONITRILE	000107-12-0
PROPYL ALCOHOL, N-	000071-23-8
PROPYLENE GLYCOL	000057-55-6
PROPYLENE GLYCOL MONOETHYL ETHER	001569-02-4
PROPYLENE GLYCOL MONOMETHYL ETHER	000107-98-2
PROPYLENE OXIDE	000075-56-9
PYRENE	000129-00-0
PYRIDINE	000110-86-1
QUINOLINE	000091-22-5
RDX / (CYCLONITE)	000121-82-4
RONNEL	000299-84-3
SELENIOUS ACID	007783-00-8
SELENIUM	007782-49-2
SELENIUM SULFIDE	007446-34-6
SELENOUREA	000630-10-4
SILVER	007440-22-4
SILVER CYANIDE	000506-64-9
SIMAZINE	000122-34-9
SODIUM CYANIDE	000143-33-9
SODIUM DIETHYLDITHIOCARBAMATE	000148-18-5
SODIUM METAVANADATE	013718-26-8
STIROPHOS	000961-11-5
STRONTIUM, STABLE	007440-24-6
STRYCHNINE	000057-24-9
STYRENE	000100-42-5
SUCCINONITRILE	000110-61-2
SULFUR DIOXIDE	007446-09-5
SULFUR OXIDES	NO CASRN
SULFURIC ACID	007664-93-9
TCDD, 2,3,7,8-	001746-01-6
TELONE II	000542-75-6
TEMEPHOS	003383-96-8
TERBUFOS	013071-79-9
TEREPHTHALIC ACID	000100-21-0
TETRACHLOROAZOXYBENZENE	021232-47-3
TETRACHLOROBENZENE, 1,2,4,5-	000095-94-3
TETRACHLOROCYCLOPENTADIENE	000695-77-2
TETRACHLOROETHANE, 1,1,1,2-	000630-20-6
TETRACHLOROETHANE, 1,1,2,2-	000079-34-5
TETRACHLOROETHYLENE	000127-18-4
TETRACHLOROHYDRAZOBENZENE	071753-42-9
TETRACHLOROPHENOL, 2,3,4,5-	004901-51-3
TETRACHLOROPHENOL, 2,3,4,6-	000058-90-2
TETRACHLOROPHENOL, 2,3,5,6-	000935-95-5
TETRACHLOROPROPENE, 1,1,2,3-	010436-39-2
TETRACHLOROTOLUENE, PARA, ALPHA, ALPHA, ALPHA-	005216-25-1
TETRACHLOROVINPHOS / (STIROPHOS)	000961-11-5
TETRAETHYL DITHIOPYROPHOSPHATE	003689-24-5
THALLIC OXIDE	001314-32-5
THALLIUM (I) ACETATE	000563-68-8
THALLIUM (I) CARBONATE	006533-73-9
THALLIUM (I) CHLORIDE	007791-12-0
THALLIUM, INSOLUBLE SALTS	NO CASRN
THALLIUM (I) NITRATE	010102-45-1
THALLIUM SELENITE	012039-52-0
THALLIUM (I) SULFATE	007446-18-6
THIOCYANOMETHYLTHIO)BENZOTHIAZOLE, 2-(	021564-17-0
THIOFANOX	013196-18-4
THIOPHENOL	000108-98-5
THIRAM	000137-26-8
TIN AND COMPOUNDS	NO CASRN
TOLUENE	000108-88-3
TOLUENE-2,4-DIAMINE	000095-80-7
TOLUENE-2,5-DIAMINE	000095-70-5
TOLUENE-2,6-DIAMINE	000823-40-5
TOLUENEDIAMINE, 2,3-	002687-25-4
TOLUENEDIAMINE, 3,4-	000496-72-0
TOLUIDINE, M-	000108-44-1
TOLUIDINE, P-	000106-49-0
TOXAPHENE	008001-35-2
TRIALLATE	002303-17-5
TRIBROMOBENZENE, 1,2,4-	000615-54-3
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	000076-13-1
TRICHLORO-2'-HYDROXYDIPHENYLETHER, 2,2,4'-	003380-34-5
TRICHLOROANILINE, 2,4,6-	000634-93-5
TRICHLOROANILINE HYDROCHLORIDE, 2,4,6-	033663-50-2
TRICHLOROBENZENE, 1,2,4-	000120-82-1
TRICHLOROCYCLOPENTADIENE	077323-84-3
TRICHLOROETHANE, 1,1,1-	000071-55-6
TRICHLOROETHANE, 1,1,2-	000079-00-5
TRICHLOROETHYLENE	000079-01-6
TRICHLOROFLUOROMETHANE	000075-69-4
TRICHLOROPHENOL, 2,3,4-	015950-66-0
TRICHLOROPHENOL, 2,3,5-	000933-78-8
TRICHLOROPHENOL, 2,3,6-	000933-75-5
TRICHLOROPHENOL, 2,4,5-	000095-95-4
TRICHLOROPHENOL, 2,4,6-	000088-06-2
TRICHLOROPHENOL, 3,4,5-	000609-19-8
TRICHLOROPHENOXY) PROPIONIC ACID, 2(2,4,5-	000093-72-1
TRICHLOROPHENOXY ACETIC ACID, 2,4,5-	000093-76-5
TRICHLOROPROPANE, 1,1,1-	007789-89-1
TRICHLOROPROPANE, 1,1,2-	000598-77-6
TRICHLOROPROPANE, 1,2,2-	003175-23-3
TRICHLOROPROPANE, 1,2,3-	000096-18-4
TRICHLOROPROPENE, 1,2,3-	000096-19-5
TRICHLOROTOLUENE, 2,3,6-	002077-46-5
TRICHLOROTOLUENE, ALPHA,2,6-	002014-83-7
TRIFLURALIN	001582-09-8
TRIMETHYL PHOSPHATE	000512-56-1
TRIMETHYLBENZENES	NO CASRN
TRINITROBENZENE, 1,3,5-	000099-35-4
TRINITROPHENOLS	NO CASRN
TRINITROPHENYLMETHYLNITRAMINE	000479-45-8

TRINITROTOLUENE, 2,4,6-	000118-96-7
VANADIUM	007440-62-2
VANADIUM PENTOXIDE	001314-62-1
VANADIUM SULFATE	036907-42-3
VERNAM / (VERNOLATE)	001929-77-7
VERNOLATE	001929-77-7
VINYL-1-CYCLOHEXENE, 4-	000100-40-3
VINYL ACETATE	000108-05-4
VINYL BROMIDE	000593-60-2
VINYL CHLORIDE	000075-01-4
WARFARIN	000081-81-2
XYLENE, M-	000108-38-3
XYLENE, MIXTURE	001330-20-7
XYLENE, O-	000095-47-6
XYLENE, P-	000106-42-3
ZINC (METALLIC)	007440-66-6
ZINC CYANIDE	000557-21-1
ZINC PHOSPHIDE	001314-84-7
ZINEB	012122-67-7

CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER AND CHEMICAL NAME CROSS REFERENCE
(LISTED BY CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER)

July 1997

000050-00-0 FORMALDEHYDE
000050-29-3 DDT
000050-32-8 BENZO[A]PYRENE
000051-28-5 DINITROPHENOL, 2,4-
000053-70-3 DIBENZO[A,H]ANTHRACENE
000055-18-5 NITROSODIETHYLAMINE, N-
000056-23-5 CARBON TETRACHLORIDE
000056-38-2 PARATHION
000056-53-1 DIETHYLSTILBESTROL
000056-55-3 BENZO[A]ANTHRACENE
000057-12-5 CYANIDE
000057-14-7 DIMETHYLHYDRAZINE, 1,1-
000057-24-9 STRYCHNINE
000057-55-6 PROPYLENE GLYCOL
000057-74-9 CHLORDANE
000058-89-9 HEXACHLOROCYCLOHEXANE, GAMMA-
000058-90-2 TETRACHLOROPHENOL, 2,3,4,6-
000059-50-7 CHLORO-M-CRESOL, P-
000059-87-0 NITROFURAZONE
000060-29-7 ETHYL ETHER
000060-34-4 METHYL HYDRAZINE
000060-51-5 DIMETHOATE
000060-57-1 DIELDRIN
000062-38-4 PHENYLMERCURIC ACETATE
000062-53-3 ANILINE
000062-75-9 NITROSODIMETHYLAMINE, N-
000063-25-2 CARBARYL
000064-18-6 FORMIC ACID
000065-85-0 BENZOIC ACID
000066-56-8 DINITROPHENOL, 2,3-
000067-20-9 NITROFURANTOIN
000067-45-8 FURAZOLIDONE
000067-56-1 METHANOL
000067-64-1 ACETONE
000067-66-3 CHLOROFORM
000067-72-1 HEXACHLOROETHANE
000068-12-2 DIMETHYLFORMAMIDE, N,N-
000070-30-4 HEXACHLOROPHENE
000071-23-8 PROPYL ALCOHOL, N-
000071-36-3 BUTANOL, 1-
000071-43-2 BENZENE
000071-55-6 TRICHLOROETHANE, 1,1,1-
000072-20-8 ENDRIN
000072-43-5 METHOXYCHLOR
000072-54-8 DDD
000072-55-9 DDE
000074-11-3 CHLOROBENZOIC ACID, P-
000074-83-9 BROMOMETHANE
000074-87-3 METHYL CHLORIDE
000074-87-3 CHLOROMETHANE
000074-95-3 METHYLENE BROMIDE
000075-00-3 ETHYL CHLORIDE
000075-01-4 VINYL CHLORIDE
000075-05-8 ACETONITRILE
000075-09-2 METHYLENE CHLORIDE
000075-09-2 DICHLOROMETHANE
000075-15-0 CARBON DISULFIDE
000075-21-8 ETHYLENE OXIDE
000075-25-2 BROMOFORM
000075-27-4 BROMODICHLOROMETHANE
000075-29-6 CHLOROPROPANE, 2-
000075-34-3 DICHLOROETHANE, 1,1-
000075-35-4 DICHLOROETHYLENE, 1,1-
000075-44-5 PHOSGENE
000075-52-5 NITROMETHANE
000075-56-9 PROPYLENE OXIDE
000075-60-5 CACODYLIC ACID
000075-69-4 TRICHLOROFLUOROMETHANE
000075-71-8 DICHLORODIFLUOROMETHANE
000075-86-5 2-METHYLLACTONITRILE
000075-86-5 ACETONE CYANOHYDRIN
000075-87-6 CHLORAL
000075-99-0 DALAPON
000076-13-1 TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-
000076-44-8 HEPTACHLOR
000077-47-4 HEXACHLOROCYCLOPENTADIENE
000077-73-6 DICYCLOPENTADIENE
000077-78-1 DIMETHYLSULFATE
000078-48-8 MERPHOS OXIDE
000078-59-1 ISOPHORONE
000078-83-1 ISOBUTYL ALCOHOL
000078-86-4 CHLOROBUTANE, 2-
000078-87-5 DICHLOROPROPANE, 1,2-
000078-93-3 METHYL ETHYL KETONE
000078-97-7 LACTONITRILE
000078-99-9 DICHLOROPROPANE, 1,1-
000079-00-5 TRICHLOROETHANE, 1,1,2-
000079-01-6 TRICHLOROETHYLENE
000079-06-1 ACRYLAMIDE
000079-10-7 ACRYLIC ACID
000079-11-8 CHLOROACETIC ACID
000079-20-9 METHYL ACETATE
000079-22-1 METHYL CHLOROCARBONATE
000079-34-5 TETRACHLOROETHANE, 1,1,2,2-
000079-46-9 NITROPROPANE, 2-
000080-05-7 BISPHENOL A
000080-62-6 METHYL METHACRYLATE
000081-81-2 WARFARIN
000082-68-8 PENTACHLORONITROBENZENE
000083-32-9 ACENAPHTHENE
000084-66-2 DIETHYL PHTHALATE
000084-74-2 DIBUTYL PHTHALATE
000085-01-8 PHENANTHRENE
000085-44-9 PHTHALIC ANHYDRIDE
000085-68-7 BUTYL BENZYL PHTHALATE, N-
000086-30-6 NITROSODIPHENYLAMINE, N-
000086-73-7 FLUORENE
000086-74-8 CARBAZOLE
000087-65-0 DICHLOROPHENOL, 2,6-
000087-68-3 HEXACHLOROBUTADIENE
000087-82-1 HEXABROMOBENZENE
000087-84-3 PENTABROMO-6-CHLOROCYCLOHEXANE, 1,2,3,4,5-
000087-86-5 PENTACHLOROPHENOL
000088-06-2 TRICHLOROPHENOL, 2,4,6-
000088-72-2 NITROTOLUENE, O-
000088-73-3 CHLORONITROBENZENE, O-
000088-74-4 NITROANILINE, 2-
000088-85-7 DINOSEB
000088-99-3 PHTHALIC ACID, O-
000090-43-7 PHENYLPHENOL, 2-
000091-20-3 NAPHTHALENE
000091-22-5 QUINOLINE
000091-66-7 DIETHYLANILINE, N,N-
000091-94-1 DICHLOROBENZIDINE, 3,3'-
000092-52-4 BIPHENYL, 1,1'
000092-87-5 BENZIDINE
000093-65-2 METHYL-4-CHLOROPHENOXY) PROPIONIC ACID, 2-(2-
000093-71-0 ALLIDOCHLOR
000093-72-1 TRICHLOROPHENOXY) PROPIONIC ACID, 2(2,4,5-
000093-76-5 TRICHLOROPHENOXY ACETIC ACID, 2,4,5-
000094-74-6 METHYL-4-CHLOROPHENOXY ACETIC ACID, 2-
000094-75-7 DICHLOROPHENOXY ACETIC ACID, 2,4-
000094-81-5 METHYL-4-CHLOROPHENOXY) BUTYRIC ACID, 4-(2-
000094-82-6 2,4-DB
000094-82-6 DICHLOROPHENOXY) BUTYRIC ACID, 4-(2,4-
000095-47-6 XYLENE, O-
000095-48-7 CRESOL, O-
000095-48-7 2-METHYLPHENOL
000095-49-8 CHLOROTOLUENE, O-
000095-50-1 DICHLOROBENZENE, 1,2-
000095-51-2 CHLOROANILINE, 2-
000095-53-4 METHYLANILINE, 2-

000095-54-5	PHENYLENEDIAMINE, O-
000095-55-6	AMINOPHENOL, O-
000095-57-8	CHLOROPHENOL, 2-
000095-65-8	DIMETHYLPHENOL, 3,4-
000095-68-1	DIMETHYLANILINE, 2,4-
000095-69-2	CHLORO-2-METHYLANILINE, 4-
000095-70-5	TOLUENE-2,5-DIAMINE
000095-77-2	DICHLOROPHENOL, 3,4-
000095-80-7	TOLUENE-2,4-DIAMINE
000095-87-4	DIMETHYLPHENOL, 2,5-
000095-94-3	TETRACHLOROBENZENE, 1,2,4,5-
000095-95-4	TRICHLOROPHENOL, 2,4,5-
000096-12-8	DIBROMO-3-CHLOROPROPANE, 1,2
000096-18-4	TRICHLOROPROPANE, 1,2,3-
000096-19-5	TRICHLOROPROPENE, 1,2,3-
000096-33-3	METHYL ACRYLATE
000096-45-7	ETHYLENE THIOUREA
000096-48-0	BUTYROLACTONE, GAMMA-
000097-63-2	ETHYL METHACRYLATE
000098-01-1	FURFURAL
000098-07-7	BENZOTRICHLORIDE
000098-56-6	CHLOROBENZOTRIFLUORIDE, 4-
000098-82-8	CUMENE
000098-83-9	METHYL STYRENE, ALPHA
000098-86-2	ACETOPHENONE
000098-87-3	BENZAL CHLORIDE
000098-95-3	NITROBENZENE
000099-08-1	NITROTOLUENE, M-
000099-09-2	NITROANILINE, M-
000099-35-4	TRINITROBENZENE, 1,3,5-
000099-55-8	METHYL-5-NITROANILINE, 2-
000099-59-2	METHOXY-5-NITROANILINE, 2-
000099-65-0	DINITROBENZENE, 1,3-
000099-99-0	NITROTOLUENE, P-
000100-00-5	CHLORONITROBENZENE, P-
000100-01-6	NITROANILINE, P-
000100-21-0	PHTHALIC ACID, P-
000100-21-0	TEREPHTHALIC ACID
000100-25-4	DINITROBENZENE, 1,4-
000100-40-3	VINYL-1-CYCLOHEXENE, 4-
000100-41-4	ETHYL BENZENE
000100-42-5	STYRENE
000100-44-7	BENZYL CHLORIDE
000100-51-6	BENZYL ALCOHOL
000100-52-7	BENZALDEHYDE
000100-54-9	NICOTINONITRILE
000101-14-4	METHYLENE-BIS(2-CHLOROANILINE), 4,4'-
000101-55-3	BROMOPHENYL PHENYL ETHER, 4-
000101-61-1	METHYLENE-BIS(N,N'-DIMETHYL)ANILINE, 4,4'-
000101-68-8	DIPHENYLMETHANE DIISOCYANATE
000101-68-8	METHYLENEDIPHENYL ISOCYANATE, 4,4-
000101-77-9	METHYLENE-BIS(BENZENEAMINE), 4,4-
000103-33-3	AZOBENZENE
000103-69-5	ETHYLANILINE, N-
000105-60-2	CAPROLACTAM
000105-67-9	DIMETHYLPHENOL, 2,4-
000106-13-8	ETHOXYETHANOL DODECANOATE, 2-
000106-37-6	DIBROMOBENZENE, 1,4-
000106-42-3	XYLENE, P-
000106-43-4	CHLOROTOLUENE, P-
000106-44-5	4-METHYLPHENOL
000106-44-5	CRESOL, P-
000106-46-7	DICHLOROBENZENE, 1,4-
000106-47-8	CHLOROANILINE, 4-
000106-48-9	CHLOROPHENOL, 4-
000106-49-0	TOLUIDINE, P-
000106-50-3	PHENYLENEDIAMINE, P-
000106-74-1	ETHOXYETHANOL ACRYLATE, 2-
000106-89-8	EPICHLOROHYDRIN
000106-93-4	DIBROMOETHANE, 1,2-
000106-99-0	BUTADIENE, 1,3-
000107-02-8	ACROLEIN
000107-05-1	ALLYL CHLORIDE
000107-12-0	PROPIONITRILE
000107-13-1	ACRYLONITRILE
000107-15-3	ETHYLENE DIAMINE
000107-16-4	FORMALDEHYDE CYANOHYDRIN
000107-18-6	ALLYL ALCOHOL
000107-20-0	CHLOROACETALDEHYDE
000107-21-1	ETHYLENE GLYCOL
000107-30-2	CHLOROMETHYL METHYL ETHER
000107-98-2	PROPYLENE GLYCOL MONOMETHYL ETHER
000108-05-4	VINYL ACETATE
000108-10-1	METHYL ISOBUTYL KETONE
000108-31-6	MALEIC ANHYDRIDE
000108-38-3	XYLENE, M-
000108-39-4	3-METHYLPHENOL
000108-39-4	CRESOL, M-
000108-41-8	CHLOROTOLUENE, M-
000108-42-9	CHLOROANILINE, 3-
000108-43-0	CHLOROPHENOL, 3-
000108-44-1	TOLUIDINE, M-
000108-45-2	PHENYLENEDIAMINE, M-
000108-60-1	BIS(2-CHLORO-1-METHYLETHYL) ETHER
000108-87-2	METHYLCYCLOHEXANE
000108-88-3	TOLUENE
000108-90-7	CHLOROBENZENE
000108-91-8	CYCLOHEXYLAMINE
000108-93-0	CYCLOHEXANOL
000108-95-2	PHENOL
000108-98-5	THIOPHENOL
000108-98-5	BENZENETHIOL
000109-66-0	PENTANE, N-
000109-69-3	CHLOROBUTANE, 1-
000109-77-3	MALONONITRILE
000109-78-4	ETHYLENE CYANOHYDRIN
000109-86-4	METHOXYETHANOL, 2-
000110-00-9	FURAN
000110-49-6	METHOXYETHANOL ACETATE, 2-
000110-54-3	HEXANE, N-
000110-61-2	SUCCINONITRILE
000110-80-5	ETHOXYETHANOL, 2-
000110-86-1	PYRIDINE
000111-15-9	ETHOXYETHANOL ACETATE, 2-
000111-44-4	BIS(2-CHLOROETHYL) ETHER
000111-69-3	ADIPONITRILE
000111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER
000111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER
000112-34-5	DIETHYLENE GLYCOL MONOBUTYL ETHER
000115-29-7	ENDOSULFAN
000116-06-3	ALDICARB
000117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE
000117-81-7	DEHP
000117-84-0	DI-N-OCTYL PHTHALATE
000118-74-1	HEXACHLOROBENZENE
000118-75-2	CHLORANIL
000118-96-7	TRINITROTOLUENE, 2,4,6-
000119-90-4	DIMETHOXYBENZIDINE, 3,3'-
000119-93-7	DIMETHYLBENZIDINE, 3,3'-
000120-12-7	ANTHRACENE
000120-36-5	DICHLORPROP
000120-61-6	DIMETHYLTEREPHTHALATE
000120-82-1	TRICHLOROBENZENE, 1,2,4-
000120-83-2	DICHLOROPHENOL, 2,4-
000121-14-2	DINITROTOLUENE, 2,4
000121-69-7	DIMETHYLANILINE, N,N-
000121-73-3	CHLORONITROBENZENE, M-
000121-75-5	MALATHION
000121-82-4	CYCLONITE
000121-82-4	RDX
000121-91-5	PHTHALIC ACID, M-
000122-34-9	SIMAZINE
000122-39-4	DIPHENYLAMINE, N,N-
000122-66-7	DIPHENYLHYDRAZINE, 1,2-

CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER AND CHEMICAL NAME CROSS REFERENCE
(LISTED BY CHEMICAL ABSTRACTS REGISTRY NUMBER) Continued

July 1997

000123-30-8	AMINOPHENOL, P-	000319-86-8	HEXACHLOROCYCLOHEXANE, DELTA-	000608-73-1	HEXACHLOROCYCLOHEXANE-TECHNICAL
000123-31-9	HYDROQUINONE	000329-71-5	DINITROPHENOL, 2,5-	000608-93-5	PENTACHLOROBENZENE
000123-33-1	MALEIC HYDRAZIDE	000330-55-2	LINURON	000609-19-8	TRICHLOROPHENOL, 3,4,5-
000123-63-7	PARALDEHYDE	000333-41-5	DIAZINON	000609-93-8	DINITRO-P-CRESOL, 2,6-
000123-73-9	CROTONALDEHYDE	000460-19-5	CYANOGEN	000610-39-9	DINITROTOLUENE, 3,4-
000123-91-1	DIOXANE, 1,4-	000479-45-8	TRINITROPHENYLMETHYLNITRAMINE	000611-14-3	ETHYLTOLUENE, O-
000124-09-4	HEXAMETHYLENE DIAMINE	000496-72-0	TOLUENEDIAMINE, 3,4-	000615-54-3	TRIBROMOBENZENE, 1,2,4-
000124-48-1	DIBROMOCHLOROMETHANE	000504-24-5	AMINOPYRIDINE, 4-	000617-84-5	DIETHYLFORMAMIDE
000126-98-7	METHACRYLONITRILE	000506-61-6	POTASSIUM SILVER CYANIDE	000619-15-8	DINITROTOLUENE, 2,5-
000126-99-8	CHLORO-1,3-BUTADIENE, 2-	000506-64-9	SILVER CYANIDE	000620-14-4	ETHYLTOLUENE, M-
000126-99-8	CHLOROPRENE	000506-68-3	CYANOGEN BROMIDE	000621-64-7	NITROSO-DI-N-PROPYLAMINE, N-
000127-18-4	TETRACHLOROETHYLENE	000506-77-4	CHLORINE CYANIDE	000622-96-8	ETHYLTOLUENE, P-
000129-00-0	PYRENE	000507-20-0	BUTYLCHLORIDE, T-	000624-83-9	METHYL ISOCYANATE
000130-15-4	NAPHTHOQUINONE, 1,4-	000510-15-6	CHLOROBENZILATE	000630-05-0	CARBON MONOXIDE
000131-11-3	DIMETHYLPHTHALATE	000512-56-1	TRIMETHYL PHOSPHATE	000630-10-4	SELENOUREA
000132-64-9	DIBENZOFURAN	000526-75-0	DIMETHYLPHENOL, 2,3-	000630-20-6	TETRACHLOROETHANE, 1,1,1,2-
000133-06-2	CAPTAN	000528-29-0	DINITROBENZENE, 1,2-	000634-93-5	TRICHLOROANILINE, 2,4,6-
000133-07-3	FOLPET	000531-82-8	FURIUM	000636-21-5	METHYLANILINE HYDROCHLORIDE, 2-
000137-26-8	THIRAM	000532-28-5	BENZALDEHYDE CYANOHYDRIN	000684-93-5	NITROSO-N-METHYLUREA, N-
000139-40-2	PROPAZINE	000534-52-1	DINITRO-O-CRESOL, 4,6-	000695-77-2	TETRACHLOROCYCLOPENTADIENE
000140-57-8	ARAMITE	000540-59-0	DICHLOROETHYLENE, 1,2- (MIXED ISOMERS)	000759-73-9	NITROSO-N-ETHYLUREA, N-
000140-88-5	ETHYL ACRYLATE	000540-73-8	DIMETHYLHYDRAZINE, 1,2-	000759-94-4	EPTC
000141-78-6	ETHYL ACETATE	000541-73-1	DICHLOROBENZENE, 1,3-	000764-41-0	DICHLORO-2-BUTENE, 1,4-
000142-28-9	DICHLOROPROPANE, 1,3-	000542-62-1	BARIUM CYANIDE	000765-34-4	GLYCIDALDEHYDE
000142-82-5	HEPTANE, N-	000542-75-6	TELONE II	000823-40-5	TOLUENE-2,6-DIAMINE
000143-33-9	SODIUM CYANIDE	000542-75-6	DICHLOROPROPENE, 1,3-	000834-12-8	AMETRYN
000145-73-3	ENDOTHALL	000542-88-1	BIS(CHLOROMETHYL) ETHER	000924-16-3	NITROSO-DI-N-BUTYLAMINE, N-
000148-18-5	SODIUM DIETHYLDITHIOCARBAMATE	000542-92-7	CYCLOPENTADIENE	000930-55-2	NITROSOPYRROLIDINE, N-
000150-50-5	MERPHOS	000544-92-3	COPPER CYANIDE	000933-75-5	TRICHLOROPHENOL, 2,3,6-
000151-50-8	POTASSIUM CYANIDE	000557-19-7	NICKEL CYANIDE	000933-78-8	TRICHLOROPHENOL, 2,3,5-
000152-16-9	OCTAMETHYLPYROPHOSPHORAMIDE	000557-21-1	ZINC CYANIDE	000934-80-5	ETHYL-O-XYLENE, 4-
000156-10-5	NITROSODIPHENYLAMINE, P-	000563-68-8	THALLIUM (I) ACETATE	000935-95-5	TETRACHLOROPHENOL, 2,3,5,6-
000156-59-2	DICHLOROETHYLENE, 1,2-C-	000573-56-8	DINITROPHENOL, 2,6-	000950-10-7	MEPHOSFOLAN
000156-60-5	DICHLOROETHYLENE, 1,2-T-	000576-24-9	DICHLOROPHENOL, 2,3-	000961-11-5	TETRACHLOROVINPHOS
000193-39-5	INDENO[1,2,3-CD]PYRENE	000576-26-1	DIMETHYLPHENOL, 2,6-	000961-11-5	STIROPHOS
000206-44-0	FLUORANTHENE	000583-78-8	DICHLOROPHENOL, 2,5-	001024-57-3	HEPTACHLOR EPOXIDE
000207-08-9	BENZO[K]FLUORANTHENE	000586-11-8	DINITROPHENOL, 3,5-	001114-71-2	PEBULATE
000208-96-8	ACENAPTHYLENE	000591-27-5	AMINOPHENOL, M-	001116-54-7	NITROSODIETHANOLAMINE, N-
000218-01-9	CHRYSENE	000591-35-5	DICHLOROPHENOL, 3,5-	001134-23-2	CYCLOATE
000298-00-0	METHYL PARATHION	000591-78-6	HEXANONE, 2-	001163-19-5	DECABROMODIPHENYL ETHER
000298-02-2	PHORATE	000592-01-8	CALCIUM CYANIDE	001198-27-2	AMINO-2-NAPHTOL HYDROCHLORIDE, 1-
000298-04-4	DISULFOTON	000593-60-2	VINYL BROMIDE	001309-64-4	ANTIMONY TRIOXIDE
000299-84-3	RONNEL	000593-60-2	BROMOETHENE	001314-32-5	THALLIC OXIDE
000302-01-2	HYDRAZINE	000594-20-7	DICHLOROPROPANE, 2,2-	001314-60-9	ANTIMONY PENTOXIDE
000304-61-0	ANTIMONY POTASSIUM TARTRATE	000598-31-2	BROMOACETONE	001314-62-1	VANADIUM PENTOXIDE
000309-00-2	ALDRIN	000598-77-6	TRICHLOROPROPANE, 1,1,2-	001314-84-7	ZINC PHOSPHIDE
000311-45-5	DIETHYL-P-NITROPHENYL PHOSPHATE	000598-94-7	DIMETHYLUREA, N,N-	001330-20-7	XYLENE, MIXTURE
000319-84-6	HEXACHLOROCYCLOHEXANE, ALPHA-	000602-01-7	DINITROTOLUENE, 2,3-	001332-21-4	ASBESTOS
000319-85-7	HEXACHLOROCYCLOHEXANE, BETA-	000606-20-2	DINITROTOLUENE, 2,6-	001332-81-6	ANTIMONY TETROXIDE

001336-36-3 POLYCHLORINATED BIPHENYLS
001338-23-4 METHYL ETHYL KETONE PEROXIDE
001563-66-2 CARBOFURAN
001569-02-4 PROPYLENE GLYCOL MONOETHYL ETHER
001582-09-8 TRIFLURALIN
001600-37-9 PENTACHLOROPROPENE, 1,1,2,3,3,-
001615-80-1 DIETHYLHYDRAZINE, 1,2-
001689-84-5 001689-99-2BROMOXYNIL OCTANOATE
001746-01-6 TCDD, 2,3,7,8-
001861-32-1 DACTHAL
001861-40-1 BENEFIN
001897-45-6 CHLOROTHALONIL
001912-24-9 ATRAZINE
001918-00-9 DICAMBA
001918-16-7 PROPACHLOR
001929-77-7 VERNOLATE
001929-77-7 VERNAM
001937-37-7 DIRECT BLACK 38
002008-41-5 BUTYLATE
002014-83-7 TRICHLOROTOLUENE, ALPHA,2,6-
002077-46-5 TRICHLOROTOLUENE, 2,3,6-
002104-96-3 BROMOPHOS
002212-67-1 MOLINATE
002303-16-4 DIALLATE
002303-17-5 TRIALLATE
002370-63-0 ETHOXYETHYL METHACRYLATE, 2-
002385-85-5 MIREX
002425-06-1 CAPTAFOL
002429-74-5 NIAGARA BLUE 4B
002491-38-5 BUSAN 90
002602-46-2 DIRECT BLUE 6
002610-05-1 DIRECT SKY BLUE 6B
002687-25-4 TOLUENEDIAMINE, 2,3-
002834-92-6 AMINO-2-NAPHTHOL, 1-
002921-88-2 CHLORPYRIFOS
003165-93-3 CHLORO-2-METHYLANILINE HYDROCHLORIDE, 4-
003175-23-3 TRICHLOROPROPANE, 1,2,2-
003380-34-5 TRICHLORO-2'-HYDROXYDIPHENYLETHER, 2,2,4'-
003383-96-8 TEMEPHOS
003689-24-5 TETRAETHYL DITHIOPYROPHOSPHATE
004399-55-7 DIRECT LIGHTFAST BLUE
004549-40-0 NITROSOMETHYLVINYLAMINE, N
004901-51-3 TETRACHLOROPHENOL, 2,3,4,5-
005216-25-1 TETRACHLOROTOLUENE, PARA, ALPHA, ALPHA, ALPHA-
005598-13-0 CHLORPYRIFOS METHYL
006108-10-7 HEXACHLOROCYCLOHEXANE, EPSILON-
006533-73-9 THALLIUM (I) CARBONATE
007429-90-5 ALUMINUM
007439-89-6 IRON
007439-92-1 LEAD
007439-96-5 MANGANESE
007439-97-6 MERCURY, ELEMENTAL
007439-98-7 MOLYBDENUM
007440-22-4 SILVER
007440-24-6 STRONTIUM, STABLE
007440-36-0 ANTIMONY, METALLIC
007440-38-2 ARSENIC, INORGANIC
007440-39-3 BARIUM
007440-41-7 BERYLLIUM
007440-42-8 BORON, ELEMENTAL
007440-43-9 CADMIUM
007440-50-8 COPPER
007440-62-2 VANADIUM
007440-66-6 ZINC (METALLIC)
007446-09-5 SULFUR DIOXIDE
007446-18-6 THALLIUM (I) SULFATE
007446-34-6 SELENIUM SULFIDE
007487-94-7 MERCURIC CHLORIDE
007637-07-2 BORON TRIFLUORIDE
007664-41-7 AMMONIA
007664-93-9 SULFURIC ACID
007723-14-0 PHOSPHORUS, WHITE
007782-41-4 FLUORINE / (SOLUBLE FLUORIDE)
007782-49-2 SELENIUM
007783-00-8 SELENIOUS ACID
007783-06-4 HYDROGEN SULFIDE
007789-89-1 TRICHLOROPROPANE, 1,1,1-
007791-12-0 THALLIUM (I) CHLORIDE
007803-51-2 PHOSPHINE
008001-35-2 TOXAPHENE
008001-58-9 CREOSOTE, COAL TAR
008007-45-2 COKE OVEN EMISSIONS
008018-01-7 MANCOZEB
010028-15-6 OZONE
010034-93-2 HYDRAZINE SULFATE
010102-43-9 NITRIC OXIDE
010102-44-0 NITROGEN DIOXIDE
010102-45-1 THALLIUM (I) NITRATE
010436-39-2 TETRACHLOROPROPENE, 1,1,2,3-
010595-95-6 NITROSOMETHYLETHYLAMINE, N-
010599-90-3 MONOCHLORAMINE
011097-69-1 AROCLOR 1254
012035-72-2 NICKEL SUBSULFIDE
012039-52-0 THALLIUM SELENITE
012122-67-7 ZINEB
012427-38-2 MANEB
012672-29-6 AROCLOR 1248
013071-79-9 TERBUFOS
013194-48-4 ETHOPROP
013196-18-4 THIOFANOX
013718-26-8 SODIUM METAVANADATE
014797-65-0 NITRITE
015950-66-0 TRICHLOROPHENOL, 2,3,4-
015972-60-8 ALACHLOR
016065-83-1 CHROMIUM(III)
016071-86-6 DIRECT BROWN 95
016752-77-5 METHOMYL
018540-29-9 CHROMIUM(VI)
020816-12-0 OSMIUM TETROXIDE
020859-73-8 ALUMINUM PHOSPHIDE
021087-64-9 METRIBUZIN
021232-47-3 TETRACHLOROAZOXYBENZENE
021436-96-4 DIMETHYLANILINE HYDROCHLORIDE, 2,4-
021564-17-0 THIOCYANOMETHYLTHIO)BENZOTHIAZOLE, 2-(
021725-46-2 CYANAZINE
022967-92-6 METHYL MERCURY
023950-58-5 PRONAMIDE
025013-15-4 METHYL STYRENE (MIXED ISOMERS)
025329-35-5 PENTACHLOROCYCLOPENTADIENE
026399-36-0 PROFLURALIN
030560-19-1 ACEPHATE
031512-74-0 BUSAN 77
032534-81-9 PENTABROMODIPHENYL ETHER
032536-52-0 OCTABROMODIPHENYL ETHER
033663-50-2 TRICHLOROANILINE HYDROCHLORIDE, 2,4,6-
033820-53-0 ISOPROPALIN

036907-42-3	VANADIUM SULFATE
039638-32-9	BIS(2-CHLOROISOPROPYL) ETHER
040487-42-1	PENDIMETHALIN
041851-50-7	CHLOROCYCLOPENTADIENE
051218-45-2	METOLACHLOR
059756-60-4	FLURIDONE
060238-56-4	CHLORTHIOPHOS
068554-00-7	ETHOXYETHANOL PHOSPHATE, 2-
071753-42-9	TETRACHLOROHYDRAZOBENZENE
077323-84-3	TRICHLOROCYCLOPENTADIENE
VARIOUS	BROMINATED DIBENZOFURANS
NO CASRN	BROMINATED DIBENZO-P-DIOXINS
NO CASRN	BROMOCHLOROETHANES
NO CASRN	DICHLOROBUTENES
NO CASRN	LEAD ALKYLS
NO CASRN	NICKEL, REFINERY DUST
VARIOUS	NICKEL, SOLUBLE SALTS
NO CASRN	NITROGEN OXIDES
NO CASRN	NITROPHENOLS
NO CASRN	PARTICULATE MATTER
NO CASRN	PHOTOCHEMICAL OXIDANTS
NO CASRN	POLYBROMINATED BIPHENYLS
NO CASRN	SULFUR OXIDES
NO CASRN	THALLIUM, INSOLUBLE SALTS
NO CASRN	TIN AND COMPOUNDS
NO CASRN	TRIMETHYLBENZENES
NO CASRN	TRINITROPHENOLS

APPENDIX A-IV

APPENDIX A-IV

IV. EFFECT LEVEL DEFINITIONS

Adverse effect. A biochemical change, functional impairment, or pathologic lesion that either singly or in combination adversely affects the performance of the whole organism, or reduces an organism's ability to respond to an additional environmental challenge.

Frank-effect-level (FEL). The exposure level at which there are statistically or biologically significant increases in frequency or severity of severe effects between the exposed population and its appropriate control group. These severe effects produce an unmistakable adverse health effect (such as severe convulsions or death).

Lowest-observed-adverse-effect level (LOAEL). The lowest exposure level at which there are statistically or biologically significant increases in frequency or severity of adverse effects between the exposed population and its appropriate control group.

Lowest-observed-effect level (LOEL). The lowest exposure level at which there are statistically or biologically significant increases in frequency or severity of any effects between the exposed population and its appropriate control group. The effects that are seen at this level may or may not be considered as adverse.

No-observed-adverse-effect level (NOAEL). An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered to be adverse.

No-observed-effect level (NOEL). An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of any effect between the exposed population and its appropriate control.

Adapted from: U.S. EPA. 1991. Integrated Risk Information System (IRIS). Online. National Center for Environmental Assessment, Cincinnati, OH.

APPENDIX A-V

APPENDIX A-V

V. NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

The Clean Air Act requires that National Ambient Air Quality Standards (NAAQS) be set and ultimately met for any air pollutant which, if present in air, may reasonably be anticipated to endanger public health or welfare and whose presence in the air results from numerous or diverse mobile and/or stationary sources. Since the primary NAAQS and the inhalation RfC serve essentially the same function, and the primary NAAQS have extensive data bases rigorously reviewed, the primary NAAQS with annual averaging times should be used *in lieu* of an inhalation RfC, except for lead. In deriving a risk assessment number for lead (Pb), the Integrated Exposure Uptake Biokinetics (IEUBK) model should be used instead of the RfC. Primary standards are designed to protect public health and secondary standards are designed to protect public welfare. Each primary NAAQS has either one or two averaging times depending on the health effects of the chemical. To date, six NAAQS have been established: Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_2), Particulate Matter, less than 10 μm in size, (PM_{10}), Ozone (O_3) and Sulfur Dioxide (SO_2). A table of the most recent NAAQS is provided as Table A-V-1.

The process of establishing and revising the NAAQS is detailed by Padgett and Richmond (Journal of the Air Pollution Control Association, 33:13-16, 1983). The primary NAAQS are solely health based and designed to protect the most sensitive group of individuals (but not necessarily the most sensitive members of that group) against adverse health effects. Thus, by definition, the NAAQS primary standards define allowable pollutant concentrations which can be present in the atmosphere without causing adverse effects, and essentially serve the same function as an inhalation RfC in a risk assessment/risk management decision, except for lead. The data bases supporting each of the NAAQS are extensive. More importantly, the NAAQS are set by the USEPA Administrator as mandated by Congress after numerous reviews and a public comment process.

TABLE A-V-1

NATIONAL AMBIENT AIR QUALITY STANDARDS[a]
(as of December 2, 1991)

Pollutant	Primary Standards[b]	Averaging Time	Secondary Standards[b]
Carbon monoxide (CO)	9 ppm (10 mg/m^3) 35 ppm (40 mg/m^3)	8 hour[c] 1 hour[c]	None
Lead (Pb) (and Lead compounds	1.5 $\mu g/m^3$	Quarterly	Same as primary
Nitrogen dioxide (NO_2) (Nitrogen oxide) (Nitric oxide)	0.053 ppm (100 $\mu g/m^3$)	Annual	Same as primary
Particulate Matter (PM_{10})	50 $\mu g/m^3$ 150 $\mu g/m^3$	Annual[d] 24 hours[e]	Same as primary
Ozone (O_3)	0.12 ppm (235 $\mu g/m^3$)	1 hour[f]	Same as primary
Sulfur dioxide (SO_2) (Sulfur oxide)	0.03 ppm (80 $\mu g/m^3$)	Annual	---
	0.14 ppm (365 $\mu g/m^3$)	24 hours[c]	---
	---	3 hours[c]	0.5 ppm (1300 $\mu g/m^3$)

[a]Source: U.S. EPA 1991. Subchapter C - Air Programs. Part 50 -National Primary and Secondary Ambient Air Quality Standards. Code of Federal Regulations 50: 693-697. Revised 7/1/91.

[b]Primary standards are designed to protect public health; Secondary standards are designed to protect public welfare.

[c]Not to be exceeded more than once per year.

[d]The standard is attained when the expected annual arithmetic mean concentration is less than or equal to 50 $\mu g/m^3$.

[e]The standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than 1.

[f]The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is equal to or less than 1.

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