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STORAGE TANKS
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PROTECTION AGENCY
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68-01-6939

INTERIM REPORT

**FATE AND TRANSPORT
OF SUBSTANCES LEAKING
FROM UNDERGROUND
STORAGE TANKS**

**VOLUME II—
APPENDICES**

JANUARY 1986

CDM

CAMP DRESSER & McKEE INC.

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INTERIM REPORT

FATE AND TRANSPORT OF SUBSTANCES
LEAKING FROM UNDERGROUND STORAGE TANKS

VOLUME 2 APPENDICES
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Appendix A

APPENDIX A

PROPERTIES OF CERCLA-REGULATED HAZARDOUS SUBSTANCES STORED IN USTs

A.1

OVERVIEW

- I. Properties of CERCLA-regulated hazardous substances stored in USTs are found herein, as follows:

A.2 Chemical Property Definitions

A.3 Chemical Abstract Services Registry Number (CASRN) Index.

A.4 Synonym Index

A.5 Alphabetical Chemical List of Property Data

A.5.1 CASRN; SYNONYM; Chemical Formula

A.5.2 Molecular Weight; Melting Point; Boiling Point

A.5.3 Density; Vapor Density; Percent Lower Explosive Limit and Flammability; Vapor Pressure

A.5.4 Solubility in Water and Octanol/Water Partition Coefficient

A.5.5 RQ - Toxicity; RQ - Ignitability; RQ Final; RQ Status

- II. The following abbreviations are used in Appendix A:

CASRN: Chemical Abstract Services Registry Number

M.W.: Molecular Weight

VAPDENS: Vapor Density

TEMP.: Temperature of Measurement

REF: Reference Book Code

KOW: Logarithm (base 10) of the Octanol/water partitioning coefficient

RKOW: Reference Book Code of Kow

CALC: Calculated Value

%LEL: Percent of Lower Explosive Limit

FLA: Flammable, Combustible

COM: Combustible, Flammable

INC: Incombustible, Not Flammable

INF: Not Flammable, Incombustible

EXP: Explosive

*: CDM Assigned Vapor Pressure Group: High, Medium, Low

H: High Vapor Pressure, assumed >100 torr

M: Medium Vapor Pressure, assumed 10-100 torr

L: Low Vapor Pressure, assumed <10 torr

RQ: Reportable Quantity (USEPA, 1985a)

<u>Letter Code</u>	<u>RQ (lbs)</u>
X	1
A	10
B	100
C	1,000
D	5,000

RQ-Toxicity: The lowest Reportable Quantity Assignment with respect to toxicity data only (Environmental Monitoring and Services, Inc., 1985).

RQ-Ignitability: The Reportable Quantity Assignment for ignitability only. (Environmental Monitoring and Services, Inc., 1985).

RQ-Final: The RQ assigned based on evaluation of all criteria. This RQ is currently in effect. May be final, proposed, or statutory.

RQ-Status: The regulatory status of Reportable Quantity Requirements. defined as:

- F: Final - not subject to change (USEPA, 1985a)
- P: Proposed Final - (Environmental Monitoring and Services, Inc., Volume II)
- S: Statutory - subject to change, being further assessed for carcinogenic and/or chronic toxicity.

III. The following codes are used for references in the database:

- A: Occupational Health Services, Inc. 1986. Hazardline. OHS, Inc., 400 Plaza Drive, Secaucus, New Jersey.
- B: Weast, R.C. (Ed.) 1980. CRC Handbook of Chemistry and Physics. Boca Raton, FL: CRC Press, Inc.
- C: Verschueren, K. 1977. Handbook of Environmental Data on Organic Chemicals. New York: Van Nostrand Reinhold Company.
- D: Versar Incorporated. 1979. Water-Related Environmental Fate of 129 Priority Pollutants, Volume I and II. Springfield, VA: National Technical Information Service.

E: Standard reference texts used for data labeled E, including B above and the following:

Windholz, M., (Ed.) 1983. The Merck Index. Rahway, NJ: Merck & Co., Inc.

IV. Note 1: Hydrochloric acid and formaldehyde are assumed to be stored as gases in solution and are treated as liquids in all analyses.

Note 2: Solubility and vapor pressure data may be assumed to be between 15°C and 25°C unless otherwise noted.

A.2

CHEMICAL PROPERTY - DEFINITIONS

Boiling Point - the temperature at which the vapor pressure of a liquid equals the pressure of the atmosphere on the liquid (°C, °F).

Density - the ratio of the mass of a solid or a liquid to its volume (g/cc, lbs/ft³).

Lower Explosive Limit (LEL) - the minimum concentration of vapor in air or oxygen below which propagation of flame does not occur on contact with a source of ignition.

Melting Point - the temperature at which the solid and liquid phases are in equilibrium (°C, °F).

Molecular Weight - the sum of the atomic weights of the total number of atoms in the formula of a chemical compound (gm/gm mole, lb/lb mole).

Octanol/Water Partitioning Coefficient (K_{ow}) - the ratio of a chemical's concentration in the octanol phase to its concentration in the aqueous phase of a two-phase octanol/water system.

$$K_{ow} = \frac{\text{concentration in octanol phase}}{\text{concentration in aqueous phase}}$$

Upper Explosive Limit (UEL) - the maximum concentration of vapor in air above which propagation of flame does not occur on contact with a source of ignition.

Vapor Density - the ratio of the mass of vapor to its volume (g/cm³, lb/ft³).

Vapor Pressure - the pressure exerted by the vapor over a liquid once evaporation and condensation have reached equilibrium (torr).

Water Solubility - the maximum amount of a substance that will dissolve in pure water at a specified temperature (mg/l, ppm).

A.3

CHEMICAL ABSTRACT SERVICES REGISTRY NUMBER INDEX (CASRN)

CASRN	NAME	SYNONYM	FORMULA
50000	Formaldehyde	Methylene oxide	CH2O
50077	Mitomycin C		C15H18N4O5
50180	Cyclophosphamide		C7H15C12N2O2P
50293	Dichloro diphenyl trichloroethane	DDT	C14H9Cl5
50328	Benzopyrene, 3,4-	Benzo[a]pyrene	C20H12
51285	Dinitrophenol, 2,4-		C6H4N2O5
51796	Ethyl carbamate (Urethane)	Ethyl ester carbamic acid	C3H7NO2
52686	Trichlorfon		C4H8Cl3O4P
53703	Dibenzo[a,h]anthracene	Dibenzanthracene,1,2:5,6-	C22H14
53963	Acetylaminofluorene, 2-	Acetamide,N-9H-fluoren-2-yl	
54115	Nicotine and salts	Pyrrolidone,1-Methyl-2-(3-)pyridyl)	C10H14N2
55185	Nitrosodiethylamine, N-	ethanamine,N-Ethyl-N-nitroso-	C4H10N2O
55630	Nitroglycerine	Trinitrate-1,2,3-Propanetriol	C3H5N3O9
56042	Methylthiouracil		C5H6N2OS
56235	Carbon tetrachloride	Tetrachloromethane	CCl4
56382	Parathion		C10H14N05PS
56531	Diethylstilbestrol		C18H20O2
56553	Benz(a)anthracene	Benzanthracene,1,2-	C18H12
56724	Coumaphos		C14H16ClO5PS
57125	Cyanides-Soluble Salts/Complexes		
57147	Dimethylhydrazine, 1,1-		(CH3)2NNH2
57249	Strychnine and salts		C21H22N2O2
57749	Chlordane		C10H6Cl8
58899	Lindane	Gamma-BHC	C6H6Cl6
60004	EDTA	Ethylenediamine tetraacetic acid	C10H16N2O8
60117	Dimethylaminoazobenzene	phenylazobenzenamine,N-N-dimethyl-	C14H15N3
60297	Ethyl ether	oxybisethane,1,1-	C2H5OC2H5
60344	Methyl hydrazine		CH6N2
60515	Dimethoate		C5H12N03PS2
60571	Dieldrin		C12H8Cl6O
61825	Triazol-3-amine, 1H-1,2,4-	Amitrole	C2H4N4
62384	Phenylmercuric acetate	mercury,(Aceto-o)phenyl-	C8H8HgO2

CASRN	NAME	SYNONYM	FORMULA
62442	Phenacetin	Acetamide,N-(4-ethoxyphenyl)-	C10H13NO2
62500	Ethyl methanesulfonate	Ethyl ester methanesulfonic acid	CH3SO2OCH2CH3
62533	Benzenamine	Aniline	C6H7N
62556	Ethanethioamide	Thioacetamide	CH3CSNH2
62566	Thiourea	Thiocarbamide	H2NCSNH2
62737	Dichlorvos		C4H7Cl2O4P
62748	Fluoroacetic acid sodium salt		
62759	Nitrosodimethylamine, N-	Dimethylnitrosamine	(CH3)2NNO
63252	Carbaryl		C12H11NO2
64186	Methanoic acid	Formic acid 90%	HC00H
64197	Acetic Acid		CH3C00H
65850	Benzoic Acid		C7H6O2
66751	Uracil Mustard		C8H11Cl2N3O2
67561	Methyl alcohol	Methanol	CH3OH
67641	Propanone, 2-	Acetone	CH3C(=O)CH3
67663	Chloroform	Trichloromethane	CHCl3
67721	Hexachloroethane	Hexachloroethane,1,1,1,2,2,2-	CCl3CCl3
71363	Butanol, 1-	Butyl alcohol,-n	CH3CH2CH2CH2OH
71432	Benzene		C6H6
71556	Methyl chloroform	Trichloroethane,1,1,1-	CH3CCl3
72208	Endrin		C12H8Cl6O
72435	Methoxychlor		C16H15Cl3O2
72548	Dichlorodiphenyl dichloroethane	DDD, 4,4 DDD, TDE	C14H10Cl4
72559	DDE, 4,4'-	DDE	
72571	Trypan Blue		C34H24N6Na4O14S4
74839	Methyl Bromide	Bromomethane	CH3Br
74873	Methyl chloride	Chloromethane	CH3Cl
74884	Methyl iodide	Iodomethane	CH3I
74895	Monomethylamine	Methylamine	CH3NH2
74908	Hydrocyanic acid	Hydrogen cyanide	HCN
74931	Methanethiol	Methylmercaptan	CH3SH
74953	Methylene bromide	Dibromomethane	

CASRN	NAME	SYNONYM	FORMULA
75003	Chloroethane	Ethyl chloride	C2H5Cl
75014	Vinylchloride	Chloroethene	CH2CHCl
75047	Monoethylamine		C2H5NH2
75058	Ethanenitrile	Acetonitrile	CH3CN
75070	Ethanal	Acetaldehyde	CH3CHO
75092	Methylene chloride	Dichloromethane	CH2Cl2
75150	Carbon disulfide	Carbon bisulfide	CS2
75207	Calcium carbide		CaC2
75218	Ethylene oxide	Oxirane	C2H4O
75252	Bromoform	Tribromomethane	CHBr3
75274	Dichlorobromomethane		
75343	Dichloroethane, 1,1-	Ethylidene dichloride	
75354	Dichloroethylene, 1,1-	Vinylidene chloride	CH2:CCl2
75365	Ethanoyl chloride	Acetyl chloride	CH3COCl
75445	Carbonyl chloride	Phosgene	Cl2CO
75503	Trimethylamine		(CH3)3N
75558	Methylaziridine, 2-	Propylenimine, 1,2-	
75569	Propylene oxide		C3H6O
75605	Cacodylic acid	Hydroxydimethylarsine oxide	(CH3)2As(O)OH
75649	Butylamine, tert-		(CH3)3CNH2
75694	Trichloromonofluoromethane	Trichlorofluoromethane	CCl3F
75718	Dichlorodifluoromethane		CCl2F2
75865	Acetone cyanohydrin	methylpropanenitrile, 2-hydroxy-2-	(CH3)2C(OH)CN
75990	Dichloropropionic acid, 2,2-	Dalapon	C3H4Cl2O2
76448	Heptachlor		C10H5Cl7
77474	Hexachlorocyclopentadiene		
77781	Dimethyl sulfate	Dimethyl ester sulfuric acid	(CH3)2SO4
78002	Tetraethyl lead	Tetraethyl plumbane	Pb(C2H5)4
78591	Isophorone	Trimethyl Cyclohexenone	
78795	Isoprene		C5H8
78819	iso-Butylamine	methylpropane, 1-Amino-2-	(CH3)2CHCH2NH2
78831	iso-butyl alcohol	propanol, 2-Methyl-1-	(CH3)2CHCH2OH

CASRN	NAME	SYNONYM	FORMULA
78875	Dichloropropane, 1,2-	Propylene dichloride	CH3CHClCH2Cl
78886	Dichloropropene, 2,3-		ClCH2CClCH2
78933	Butanone,2-	Methyl ethyl ketone	CH3COCH2CH3
78999	Dichloropropane, 1,1-		CH3CH2CHCl2
79005	Trichloroethane, 1,1,2-		CH2ClCHCl2
79016	Trichloroethylene	Trichloroethene	
79061	Acrylamide	Propenamide,2-	CH2CHCONH2
79094	Propionic acid		CH3CH2COOH
79107	Acrylic acid	Propenoic acid,2-	CH2CHCO2H
79345	Tetrachloroethane, 1,1,2,2-		Cl2CHCHCl2
79447	Dimethylcarbamoyl chloride		
79469	Nitropropane, 2-	Propane, 2-nitro	CH3CH(NO2)CH3
80626	Methyl methacrylate		C5H8O2
81812	Warfarin		C19H16O4
82688	Pentachloronitrobenzene		C6Cl5NO2
83329	Acenaphthene		C12H10
84662	Diethyl phthalate		C12H14O4
84742	Dibutyl phthalate	Butyl phthalate,n-	1,2-(C4H9OOC)2C6H4
85018	Phenanthrene		C14H10
85449	Phthalic anhydride		C8H4O3
85687	Butyl benzyl phthalate		
86306	Nitrosodiphenylamine, N-		C6H5NHC6H4NO
86500	Guthion		C10H12N3O3PS2
86884	Naphthylthiourea, alpha-		C11H10N2S
87683	Hexachlorobutadiene		CCl2CClCClCCl2
87865	Pentachlorophenol		C6HCl5O
88062	Trichlorophenol, 2,4,6-		C6H3Cl3O
88722	Nitrotoluene, o-		C7H7NO2
88755	Nitrophenol, o-	Nitrophenol,2-	C6H5NO3
88857	Dinoseb		C10H12N2O5
91203	Naphthalene		C10H8
91225	Quinoline		C9H7N

CASRN	NAME	SYNONYM	FORMULA
91587	Chloronaphthalene, 2-	Chloronaphthalene,beta-	C10H7Cl
91598	Naphthylamine, beta-	Naphthylamine,2-	C10H9N
91941	Dichlorobenzidine, 3,3'-		C12H10Cl2N2
92875	Benzidine	(1,1-Biphenyl)-4,4-diamine	C12H12N2
93721	Silvex	Silvex or 2,4,5-TP acid	C9H7Cl3O3
	2,4,5-	T acid,2,4,5-	C8H5Cl3O3
93765	T,		
93798	T esters, 2,4,5-		
94111	D Esters, 2,4-		
94586	Dihydrosafrole	propylbenzene,1,2-Methylenedioxy-4-	
94597	Safrole	allylbenzene,1,2-Methylenedioxy-4-	
94757	Dichlorophenoxyacetic acid, 2,4-	D Acid,2,4-	
94791	D Esters, 2,4-		
94804	D Esters, 2,4-		
95476	Xylene, o-	Dimethylbenzene,o-	C8H10
95487	Cresol-o	Cresylic acid, o-	C7H8O
95501	Dichlorobenzene, o-	Dichlorobenzene, 1,2-	C6H4Cl2
95578	Chlorophenol, 2-	Chlorophenol,o-	C6H5ClO
95807	Diaminotoluene	Toluenediamine	
95954	Trichlorophenol, 2,4,5-		C6H3Cl3O
96128	Dibromo-3-chloropropane, 1,2-		ClCH2CHBrCH2Br
96457	Imidazolidinethione, 2-	Ethylenethiourea	C3H6N2S
97632	Ethyl methacrylate	Propenoic acid,2-Methylethylether 2-	
98011	Furancarboxaldehyde, 2-	Furfural	C5H4O2
98828	Cumene	Methylethylbenzene,1-	C9H12
98862	Acetophenone	Ethanone, 1 phenyl	
98884	Benzoyl chloride	Dibenzene Chloride	C7H5ClO
98953	Nitrobenzene		C6H5NO2
99081	Nitrotoluene, m-		C7H7NO2
99650	Dinitrobenzene, m-		C6H4N2O4
99990	Nitrotoluene, p-		C7H7NO2
100016	Nitroaniline, p-	Nitrobenzenamine,4-	C6H6N2O2
100027	Nitrophenol, p-	Nitrophenol, 4-	C6H5NO3

CASRN	NAME	SYNONYM	FORMULA
100254	Dinitrobenzene, p-		C6H4N2O4
100414	Ethylbenzene		C6H5C2H5
100425	Styrene		C6H5CHCH2
100447	Benzyl chloride	Chloromethylbenzene	C6H5CH2Cl
100470	Benzonitrile		C6H5CN
100754	Nitrosopiperidine, N-	nitrosopyridine, Hexahydro-N-	
101144	Methylenebis(2-chloroaniline), 4,4'		C13H12Cl2N2
105464	Butyl acetate, sec-		CH3COOCH(CH3)CH2CH3
106423	Xylene, p-	Dimethylbenzene, p-	C8H10
106445	Cresol-p	Cresylic acid, p-	C7H8O
106478	Chloroaniline, p-	Chlorobenzenamine, 4-	C6H6ClN
106514	Cyclohexadienedione, 1,4-	Benzoquinone, p-	
106898	Chloro-2,3-epoxypropane, 1-	Epichlorohydrin	C3H5ClO
106934	Ethylene dibromide	Dibromoethane, 1,2-	BrCH2CH2Br
107028	Propenal, 2-	Acrolein	CH2CHCHO
107051	Allyl chloride		CH2CHCH2Cl
107062	Dichloroethane, 1,2-	Ethylene dichloride	ClCH2CH2Cl
107108	Propylamine, n-	Propanamine, 1-	
107131	Propenenitrile, 2-	Acrylonitrile	CH2CHCN
107153	Ethylenediamine		H2NCH2CH2NH2
107186	Propen-1-ol, 2-	Allyl alcohol	CH2CHCH2OH
107197	Propyn-1-ol, 2-	Propargyl alcohol	HCCCH2OH
107200	Chloroacetaldehyde		ClCH2CHO
107493	Tetraethyl pyrophosphate	Tetraethyl ester pyrophosphoric ac.	C8H20O7P2
107926	Butyric acid		CH3CH2CH2CO2H
108054	Vinyl Acetate		CH3COOCHCH2
108101	Methyl-2-pentanone, 4-	Methyl isobutyl ketone	CH3COCH2CH(CH3)2
108247	Acetic anhydride		(CH3CO)2O
108316	Furandione, 2,5-	Maleic anhydride	C4H2O3
108383	Xylene, m-	Dimethylbenzene, m-	C8H10
108463	Resorcinol	Benzenediol, 1,3-	C6H6O2
108601	Bis(2-chloroisopropyl) ether	Oxybis(2-chloropropane), 2,2-	

CASRN	NAME	SYNONYM	FORMULA
108883	Toluene	Methylbenzene	C7H8
108907	Chlorobenzene		C6H5Cl
108941	Cyclohexanone		C6H10O
108952	Phenol	Hydroxybenzene	C6H6O
108985	Benzenthioal	Thiophenol	C6H5SH
109068	Picoline, 2-	Pyridine, 2-methyl	
109739	Butylamine		C4H11N
109897	Diethylamine		(C2H5)2NH
109999	Tetrahydrofuran		C4H8O
110009	Furan	Furfuran	
110167	Maleic Acid		C4H4O4
110178	Fumaric Acid		C4H4O4
110190	Butyl acetate, iso-		CH3COOCH2CH(CH3)2
110758	Chloroethyl vinyl ether, 2-	Chloroethoxyethene,2-	C1CH2CH2OCHCH2
110827	Cyclohexane	Hexahydrobenzene	C6H12
110861	Pyridine		C5H5N
111444	Bis(2-chloroethyl) ether	Dichloroethyl ether	C4H8Cl2O
111911	Bis(2-chloroethoxy) methane		C5H10Cl2O2
115026	Azaserine	Diazoacetate (ester) L-Serine	C5H7N3O4
115297	Endosulfan		C9H6Cl6O3S
115322	Kelthane	Dicofol	C14H9Cl15O
116063	Aldicarb		C7H14N2O2S
117806	Dichlone		C10H4Cl2O2
117817	Bis(2-ethylhexyl)phthalate	phthalate,Di-sec-octyl	C24H38O4
117840	Di-n-octyl phthalate		
118741	Hexachlorobenzene		C6Cl6
119904	Dimethoxybenzidine, 3,3'-		C14H16N2O2
119937	Dimethylbenzidine, 3,3'-		C14H16N2
120127	Anthracene		C14H10
120581	Isosafrole		C10H10O2
120821	Trichlorobenzene, 1,2,4-		C6H3Cl3
120832	Dichlorophenol, 2,4-		C6H4Cl2O

CASRN	NAME	SYNONYM	FORMULA
121142	Dinitrotoluene, 2,4-	dinitrobenzene,1-Methyl-2,4-	C7H6N2O4
121211	Pyrethrins		C21H289O3
121299	Pyrethrins		
121448	Triethylamine		(C2H5)3N
121755	Malathion		C10H19O6PS2
123626	Propionic anhydride		(CH3CH2CO)2O
123739	Butenal, 2-	Crotonaldehyde	CH3CHCHCHO
123864	Butyl acetate		CH3COO(CH2)3CH3
123911	Diethylene dioxide, 1,4-	Dioxane,1,4-	
123922	Amyl acetate, iso-		CH3COOCH2CH2CH(CH3)
124403	Dimethylamine	methanamine,N-Methyl	(CH3)2NH
124414	Sodium methylate		CH3ONa
124481	Chlorodibromomethane		CHBr2
126727	Tris(2,3-dibromopropyl) phosphate		C9H15Br6O4P
126987	Methacrylonitrile	propenenitrile,2-Methyl-2-	CH2C(CH3)CN
127184	Tetrachloroethylene	Tetrachloroethene,1,1,2,2-	C12CCl2
129000	Pyrene		C16H10
131113	Dimethyl phthalate		C10H10O4
133062	Captan		C9H8Cl3NO2S
134327	Naphthylamine, 1-	Naphthalamine,alpha-	C10H9N
137268	Bis(dimethylthiocarbamoyl)disulfide	Thiram	C6H12N2S4
140885	Ethyl acrylate	Propanoic acid, ethyl ester 2-	CH2CHCOOCH2CH3
141786	Ethyl acetate	Ethyl ester acetic acid	CH3COOC2H5
142289	Dichloropropane, 1,3-		C1CH2CHCHCl
142847	Dipropylamine	Propanamine,n-propyl-1-	
143339	Sodium cyanide		NaCN
143500	Kepone		C10Cl10O
148823	Melphalan		C13H18Cl2N2O2
151508	Potassium cyanide		KCN
151564	Aziridine	Ethylenimine	C2H5N
152169	Octamethyldiphosphoramide		C8H24N4O3P2
156605	Dichloroethylene-trans, 1,2-	ethene,trans-1,2 dichloro	

CASRN	NAME	SYNONYM	FORMULA
189559	Dibenz[a,i]pyrene	Dibenzopyrene,1,2:7,8-	
191242	Benzo[ghi]perylene		
193395	Indeno(1,2,3-cd)pyrene	pyrene,1,10-(1,2-Phenylene)	
205992	Benzo(b)fluoranthene	Benzofluoranthene,2,3-	
206440	Benzo(j,k)fluorene	Fluoranthene	
218019	Benzphenanthrene, 1,2-	Chrysene	C18H12
298000	Methyl parathion		C8H10N05PS
298022	Phorate		C7H17O2PS3
298044	Disulfoton		C8H19O2PS2
300765	Naled		C4H7Br2C12O4P
302012	Diamine	Hydrazine	H2NNH2
303344	Lasiocarpine		C21H33N07
305033	Chlorambucil		C14H19C12N02
309002	Aldrin		C12H8C16
315184	Mexacarbate		C12H18N2O2
329715	Dinitrophenol, 2,5-		C6H4N2O5
330541	Diuron		C9H10C12N2O
333415	Diazinon		C12H21N2O3PS
460195	Cyanogen		NCCN
492808	Auramine		
494031	Chlornaphazine		C14H15C12N
504245	Aminopyridine, 4-	Pyridinamine,4-	C5H6N2
504609	Methylbutadiene, 1-	Pentadiene,1,3-	
506649	Silver cyanide		AgCN
506774	Chlorine cyanide	Cyanogen chloride	CNC1
506967	Acetyl bromide	Ethanoyl bromide	CH3COBr
509148	Tetranitromethane		C(NO2)4
510156	Ethyl 4,4'-dichlorobenzilate	Chlorobenzilate	
513495	Butylamine, sec-		CH3CH2CH(NH2)CH3
528290	Dinitrobenzene, o-		C6H4N2O4
534521	Dinitro-o-cresol, 4,6-	methylphenol,2,4-Dinitro-6-	C7H6N2O5
540738	Dimethylhydrazine, 1,2-		CH3NHNHCH3

CASRN	NAME	SYNONYM	FORMULA
540885	Butyl acetate, tert-		CH3COOC(CH3)3
541731	Dichlorobenzene, m-	Dichlorobenzene, 1,3-	C6H4CL2
542756	Dichloropropene, 1,3-		C1CH2CHCHCl
542767	Chloropropionitrile, 3-	Propanenitrile, 3-chloro	
542881	Bis(chloromethyl)ether	Oxybis(chloromethane)	(CH2Cl)2O
544183	Cobaltous formate		Co(HCOO)6
544923	Copper Cyanides		
554847	Nitrophenol, m-		C6H5NO3
557211	Zinc cyanide		Zn(CN)2
563122	Ethion		C9H22O4P2S4
573568	Dinitrophenol, 2,6-		C6H4N2O5
584849	Toluene diisocyanate	Diisocyanatomethylbenzene, 2,4-	C9H6N2O2
606202	Dinitrotoluene, 2,6-	dinitrobenzene, 1-Methyl-2,6-	C7H6N2O4
609198	Trichlorophenol, 3,4,5-		C6H3Cl3O
610399	Dinitrotoluene, 3,4-		C7H6N2O4
615532	Nitroso-N-methylurethane, N-		
621647	Di-n-propylnitrosamine	propylamine, N-Nitrosodi-n-	
624839	Methyl isocyanate	Methyl ester isocyanic acid	
625161	Amyl acetate, tert-		C7H14O2
626380	Amyl acetate, sec-		C7H14O2
628637	Amyl acetate		
631618	Ammonium acetate		CH3COONH4
640197	Fluoroacetamide	Fluoroacetamide, 2-	CH2FCONH2
684935	Nitroso-N-methylurea, N-	carbamide, N-Methyl-N-nitroso-	H2NCON(NO)CH3
692422	Diethylarsine		C4H11As
759739	Nitroso-N-ethylurea, N-	carbamide, N-ethyl-N-nitroso-	C3H7N3O2
765344	Glycidylaldehyde	propanal, 2,3-Epoxy-1-	C3H6O2
924163	N-Nitrosodi-n-butylamine		
930552	N-Nitrosopyrrolidine	nitrosopyrrole, Tetrahydro-N-	C4H8N2O
933755	Trichlorophenol, 2,3,6-		C6H3Cl3O
933788	Trichlorophenol, 2,3,5-		C6H3Cl3O
1111780	Ammonium carbamate		NH2COONH4

CASRN	NAME	SYNONYM	FORMULA
1116547	Nitrosodiethanolamine, N-	ethanol,2,2'-(nitrosamino)bis	(HOCH2CH2)2NNO
1120714	Propane sultone, 1,3-	Dioxide, 1,2-oxathiolane,2,2-	
1194656	Dichlobenil		C7H3Cl2N
1300716	Xylenol		(CH3)2C6H3OH
1303282	Arsenic (V) oxide	Arsenic pentoxide	As2O5
1309644	Antimony trioxide		Sb2O3
1310583	Potassium hydroxide		KOH
1310732	Sodium hydroxide		NaOH
1314621	Vanadium (V) oxide	Vanadium pentoxide	V2O5
1314803	Phosphorus sulfide	Phosphorus pentasulfide	P2S5
1314847	Zinc phosphide		Zn3P2
1319728	T amines, 2,4,5-		
1319773	Cresol(s)	Cresylic acid	
1320189	D Esters, 2,4-		
1321126	Nitrotoluene		
1330207	Xylene	Dimethylbenzene	C6H4(CH3)2
1332214	Asbestos		
1336216	Ammonium hydroxide		
1336363	Polychlorinated biphenyls (PCB's)	Aroclors	
1338234	Butanone peroxide, 2-	Methyl ethyl ketone peroxide	
1338245	Naphthenic acid		
1341497	Ammonium bifluoride		NH4HF2
1464535	Bioxirane, 2,2'-	Diepoxybutane,1,2:3,4-	
1563662	Carbofuran		C12H15NO3
1615801	Diethylhydrazine, N,N'-	Diethylhydrazine,1,2-	C2H5NHNHC2H5
1746016	Tetrachlorodibenzo-p-dioxin, 2,3,7,TCDD		C12H4Cl4O
1762954	Ammonium thiocyanate		NH4SCN
1918009	Dicamba		C8H6Cl2O3
1928387	D Esters, 2,4-		
1928478	T esters, 2,4,5-		
1928616	D Esters, 2,4-		
1929738	D Esters, 2,4-		

CASRN	NAME	SYNONYM	FORMULA
2032657	Mercaptodimethur		C11H15N02S
2312358	Propargite		
2545597	T esters, 2,4,5-		
2764729	Diquat		
2921882	Chlorpyrifos		C9H11Cl3N03PS
2971382	D Esters, 2,4-		
3689245	Tetraethyldithiopyrophosphate		
3813147	T amines, 2,4,5-		
4549400	Nitrosomethylvinylamine, N-	nitrosoethenamine, N-Methyl-N-	
6009707	Ammonium oxalate		NH4OOC00NH4
6369966	T amines, 2,4,5-		
6369977	T amines, 2,4,5-		
7439921	Lead	Pb	
7439976	Mercury		Hg
7440020	Nickel		Ni
7440224	Silver		Ag
7440235	Sodium		Na
7440280	Thallium		Tl
7440360	Antimony		Sb
7440382	Arsenic		As
7440417	Beryllium		Be
7440439	Cadmium		Cd
7440473	Chromium		Cr
7440508	Copper		Cu
7440666	Zinc		Zn
7446142	Lead sulfate		PbS04
7447394	Cupric chloride		CuCl2
7558794	Sodium phosphate, dibasic		
7601549	Sodium phosphate, tribasic		Na3P04
7631905	Sodium bisulfite		HNa03S
7632000	Sodium nitrite		NaN02
7646857	Zinc chloride		ZnCl2

CASRN	NAME	SYNONYM	FORMULA
7547010	Hydrochloric acid	Hydrogen Chloride	HCL in H2O
7664382	Phosphoric acid		H3PO4
7664393	Hydrofluoric acid	Hydrogen fluoride	
7664417	Ammonia		NH3
7664939	Sulfuric acid		H2SO4
7681494	Sodium fluoride		NaF
7681529	Sodium hypochlorite		NaClO
7697372	Nitric acid		HN03
7705080	Ferric chloride		FeCl3
7718549	Nickel chloride		NiCl2
7719122	Phosphorus trichloride		PCl3
7720787	Ferrous sulfate		FeSO4
7722647	Potassium permanganate		KMnO4
7723140	Phosphorus		P
7733020	Zinc sulfate		ZnSO4
7738945	Chromic acid		CrO3
7758943	Ferrous chloride		FeCl2
7758987	Cupric sulfate		CuSO4
7761888	Silver nitrate		AgNO3
7773060	Ammonium sulfamate		NH4SO3NH2
7775113	Sodium chromate		NaCrO4
7778394	Arsenic acid		H3AsO4
7778509	Potassium bichromate		K2Cr2O7
7778543	Calcium hypochlorite		Ca(OCl)2
7782414	Fluorine		F2
7782492	Selenium		Se
7782505	Chlorine		Cl2
7782630	Ferrous sulfate		FeSO4
7783064	Hydrogen sulfide	Hydrosulfuric acid	H2S
7783188	Ammonium thiosulfate		(NH4)2S2O3
7784465	Sodium arsenite		NaAsO2
7786347	Mevinphos		C7H13O6P

CASRN	NAME	SYNONYM	FORMULA
7786814	Nickel sulfate		NiSO4
7789437	Cobaltous bromide		CoBr2
7790945	Chlorosulfonic acid		ClH03S
7803512	Hydrogen phosphide	Phosphine	PH3
7803556	Ammonium vanadate		NH4VO3
8001352	Toxaphene	Octachlorocamphene	C10H10O0C18
8001589	Creosote		H0C6H4CH3
8003198	Dichloropropane-Dichloropropene-MIX		
8014957	Sulfuric Acid		H2SO4
9004664	Ferric dextran	Iron dextran	
10025873	Phosphorus oxychloride	Phosphoryl Chloride	POCl3
10025919	Antimony trichloride		SbCl3
10026116	Zirconium tetrachloride		ZrCl4
10043013	Aluminum sulfate		Al2(SO4)3
10049055	Chromous chloride		CrCl2
10102439	Nitric oxide	Nitrogen (II) oxide	NO
10102440	Nitrogen dioxide	Nitrogen (IV) oxide	NO2
10192300	Ammonium bisulfite		NH4HSO3
10196040	Ammonium sulfite		(NH4)2SO3
10421484	Ferric Nitrate		Fe(NO3)3
10544726	Nitrogen dioxide	Nitrogen (IV) oxide	NO2
10588019	Sodium bichromate		Cr2NO2O7
12054487	Nickel hydroxide		N:(OH)2
12125018	Ammonium fluoride		NH4F
12125029	Ammonium chloride		NH4Cl
12135761	Ammonium sulfide		(NH4)2S
12771083	Sulfur monochloride		S2Cl2
13560991	T salts, 2,4,5-		
13826830	Ammonium fluoborate		
13952846	Butylamine, sec-		CH3CH2CH(NH2)CH3
14017415	Cobaltous sulfamate		
15950660	Trichlorophenol, 2,3,4-		

CASRN	NAME	SYNONYM	FORMULA
16721805	Sodium hydrosulfide		HNaS
16752775	Methomyl		C5H10N2O2S
16919190	Ammonium silicofluoride		F6H8N2Si
16923958	Zirconium potassium fluoride		
18883664	Streptozotocin		C8H15N3O7
20816120	Osmium oxide	Osmium tetroxide	OsO4
20830813	Daunomycin		C27H29NO10
20859738	Aluminum phosphide		AlP
23950585	Pronamide		
25154545	Dinitrobenzene (mixed)		C6H4N2O4
25154556	Nitrophenol (mixed)		C6H5NO3
25155300	Sodium dodecylbenzene sulfonate		C12H25C6H4SO3Na
25167822	Trichlorophenol		
25168154	T esters, 2,4,5-		
25168267	D Esters, 2,4-		
25321146	Dinitrotoluene		
25321226	Dichlorobenzene (mixed)		
26264062	Calcium dodecylbenzene sulfonate		
26628228	Sodium azide		NaN3
26638197	Dichloropropane		
26952238	Dichloropropene(s)		C1CH2CHCHC1
27176870	Dodecylbenzenesulfonic acid		
27323417	Triethanolamine dodecylbenzene sulf		
27774136	Vanadyl sulfate		
30525894	Paraformaldehyde		(CH2O)n
32534955	TP acid esters, 2,4,5-		
42504461	Isopropanolamine dodecylbenzene sul		
53467111	D Esters, 2,4-		
61792072	T esters, 2,4,5-		

A.4

SYNONYM INDEX

SYNONYM

NAME

Acetaldehyde	Ethanal
Acetamide,N-9H-fluoren-2-yl	Acetylaminofluorene, 2-
Acetamide,N-(4-ethoxyphenyl)-	Phenacetin
Acetone	Propanone, 2-
Acetonitrile	Ethanenitrile
Acetyl chloride	Ethanoyl chloride
Acrolein	Propenal, 2-
Acrylonitrile	Propenenitrile, 2-
Allyl alcohol	Propen-1-ol, 2-
allylbenzene,1,2-Methylenedioxy-4-	Safrole
Amitrole	Triazol-3-amine, 1H-1,2,4-
Aniline	Benzenamine
Aroclors	Polychlorinated biphenyls (PCB's)
Arsenic pentoxide	Arsenic (V) oxide
Benzanthracene,1,2-	Benz(a)anthracene
Benzenediol,1,3-	Resorcinol
Benzo(a)fluoranthene,2,3-	Benzo(b)fluoranthene
Benzoquinone,p-	Cyclohexadienedione, 1,4-
Benzo[a]pyrene	Benzopyrene, 3,4-
Bromomethane	Methyl Bromide
Butyl alcohol,-n	Butanol, 1-
Butyl phthalate,n-	Dibutyl phthalate
carbamide,N-ethyl-N-nitroso-	Nitroso-N-ethylurea, N-
carbamide,N-Methyl-N-nitroso-	Nitroso-N-methylurea, N-
Carbon bisulfide	Carbon disulfide
Chlorobenzenamine,4-	Chloroaniline, p-
Chlorobenzilate	Ethyl 4,4'-dichlorobenzilate
Chloroethene	Vinylchloride
Chloroethoxyethene,2-	Chloroethyl vinyl ether, 2-
Chloromethane	Methyl chloride
Chloromethylbenzene	Benzyl chloride
Chloronaphthalene,beta-	Chloronaphthalene, 2-

SYNONYM

NAME

Chlorophenol, o-	Chlorophenol, 2-
Chrysene	Benzphenanthrene, 1,2-
Cresylic acid	Cresol(s)
Cresylic acid, o-	Cresol-o
Cresylic acid, p-	Cresol-p
Crotonaldehyde	Butenal, 2-
Cyanogen chloride	Chlorine cyanide
D Acid, 2,4-	Dichlorophenoxyacetic acid, 2,4-
Dalapon	Dichloropropionic acid, 2,2-
DDD, 4,4 DDD, TDE	Dichlorodiphenyl dichloroethane
DDE	DDE, 4,4'-
DDT	Dichloro diphenyl trichloroethane
Diazoacetate (ester) L-Serine	Azaserine
Dibenzanthracene, 1,2:5,6-	Dibenzo[a,h]anthracene
Dibenzene Chloride	Benzoyl chloride
Dibenzopyrene, 1,2:7,8-	Dibenz[a,i]pyrene
Dibromoethane, 1,2-	Ethylene dibromide
Dibromomethane	Methylene bromide
Dichlorobenzene, 1,2-	Dichlorobenzene, o-
Dichlorobenzene, 1,3-	Dichlorobenzene, m-
Dichloroethyl ether	Bis(2-chloroethyl) ether
Dichloromethane	Methylene chloride
Dicofol	Kelthane
Diepoxybutane, 1,2:3,4-	Bioxirane, 2,2'-
Diethylhydrazine, 1,2-	Diethylhydrazine, N,N'-
Diisocyanatomethylbenzene, 2,4-	Toluene diisocyanate
Dimethyl ester sulfuric acid	Dimethyl sulfate
Dimethylbenzene	Xylene
Dimethylbenzene, m-	Xylene, m-
Dimethylbenzene, o-	Xylene, o-
Dimethylbenzene, p-	Xylene, p-
Dimethylnitrosamine	Nitrosodimethylamine, N-

SYNONYM

NAME

dinitrobenzene,1-Methyl-2,4-	Dinitrotoluene, 2,4-
dinitrobenzene,1-Methyl-2,6-	Dinitrotoluene, 2,6-
Dioxane,1,4-	Diethylene dioxide, 1,4-
Dioxide, 1,2-oxathiolane,2,2-	Propane sultone, 1,3-
Epichlorohydrin	Chloro-2,3-epoxypropane, 1-
ethanamine,N-Ethyl-N-nitroso-	Nitrosodiethylamine, N-
ethanol,2,2'-(nitrosamino)bis	Nitrosodiethanolamine, N-
Ethanone, 1 phenyl	Acetophenone
Ethanoyl bromide	Acetyl bromide
ethene,trans-1,2 dichloro	Dichloroethylene-trans, 1,2-
Ethyl chloride	Chloroethane
Ethyl ester acetic acid	Ethyl acetate
Ethyl ester carbamic acid	Ethyl carbamate (Urethane)
Ethyl ester methanesulfonic acid	Ethyl methanesulfonate
Ethylene dichloride	Dichloroethane, 1,2-
Ethylenediamine tetraacetic acid	EDTA
Ethylenethiourea	Imidazolidinethione, 2-
Ethylenimine	Aziridine
Ethylidene dichloride	Dichloroethane, 1,1-
Fluoranthene	Benzo(j,k)fluorene
Fluoroacetamide,2-	Fluoroacetamide
Formic acid 90%	Methanoic acid
Furfural	Furancarboxaldehyde, 2-
Furfuran	Furan
Gamma-BHC	Lindane
Hexachloroethane,1,1,1,2,2,2-	Hexachloroethane
Hexahydrobenzene	Cyclohexane
Hydrazine	Diamine
Hydrogen Chloride	Hydrochloric acid
Hydrogen cyanide	Hydrocyanic acid
Hydrogen fluoride	Hydrofluoric acid
Hydrosulfuric acid	Hydrogen sulfide

SYNONYM

NAME

Osmium tetroxide	Osmium oxide
Oxirane	Ethylene oxide
oxybisethane,1,1-	Ethyl ether
Oxybis(2-chloropropane),2,2-	Bis(2-chloroisopropyl) ether
Oxybis(chloromethane)	Bis(chloromethyl)ether
Pb	Lead
Pentadiene,1,3-	Methylbutadiene, 1-
phenylazobenzenamine,N-N-dimethy	Dimethylaminoazobenzene
Phosgene	Carbonyl chloride
Phosphine	Hydrogen phosphide
Phosphorus pentasulfide	Phosphorus sulfide
Phosphoryl Chloride	Phosphorus oxychloride
phthalate,Di-sec-octyl	Bis(2-ethylhexyl)phthalate
propanal,2,3-Epoxy-1-	Glycidylaldehyde
Propanamine,1-	Propylamine, n-
Propanamine,n-propyl-1-	Dipropylamine
Propanenitrile, 3-chloro	Chloropropionitrile, 3-
Propane, 2-nitro	Nitropropane, 2-
Propanoic acid, ethyl ester 2-	Ethyl acrylate
propanol,2-Methyl-1-	iso-butyl alcohol
Propargyl alcohol	Propyn-1-ol, 2-
Propenamide,2-	Acrylamide
propenenitrile,2-Methyl-2-	Methacrylonitrile
Propenoic acid,2-	Acrylic acid
Propenoic acid,2-Methylethylether	Ethyl methacrylate
propylamine,N-Nitrosodi-n-	Di-n-propylnitrosamine
propylbenzene,1,2-Methylenedioxy	Dihydrosafrole
Propylene dichloride	Dichloropropane, 1,2-
Propylenimine,1,2-	Methylaziridine, 2-
pyrene,1,10-(1,2-Phenylene)	Indeno(1,2,3-cd)pyrene
Pyridinamine,4-	Aminopyridine, 4-
Pyridine, 2-methyl	Picoline, 2-

SYNONYM	NAME
Hydroxybenzene	Phenol
Hydroxydimethylarsine oxide	Cacodylic acid
Iodomethane	Methyl iodide
Iron dextran	Ferric dextran
Maleic anhydride	Furandione, 2,5-
mercury,(Aceto-o)phenyl-	Phenylmercuric acetate
methanamine,N-Methyl	Dimethylamine
Methanol	Methyl alcohol
Methyl ester isocyanic acid	Methyl isocyanate
Methyl ethyl ketone	Butanone,2-
Methyl ethyl ketone peroxide	Butanone peroxide, 2-
Methyl isobutyl ketone	Methyl-2-pentanone, 4-
Methylamine	Monomethylamine
Methylbenzene	Toluene
Methylene oxide	Formaldehyde
Methylethylbenzene,1-	Cumene
Methylmercaptan	Methanethiol
methylphenol,2,4-Dinitro-6-	Dinitro-o-cresol, 4,6-
methylpropanenitrile,2-hydroxy-2-	Acetone cyanohydrin
methylpropane,1-Amino-2-	iso-Butylamine
Naphthalamine,alpha-	Naphthylamine, 1-
Naphthylamine,2-	Naphthylamine, beta-
Nitrobenzenamine,4-	Nitroaniline, p-
Nitrogen (II) oxide	Nitric oxide
Nitrogen (IV) oxide	Nitrogen dioxide
Nitrogen (IV) oxide	Nitrogen dioxide
Nitrophenol, 4-	Nitrophenol, p-
Nitrophenol,2-	Nitrophenol, o-
nitrosoethenamine,N-Methyl-N-	Nitrosomethylvinylamine, N-
nitrosopyridine,Hexahydro-N-	Nitrosopiperidine, N-
nitrosopyrrole,Tetrahydro-N-	N-Nitrosopyrrolidine
Octachlorocamphene	Toxaphene

SYNONYM	NAME
Pyrrolidone,1-Methyl-2-(3-)pyridyl)	Nicotine and salts
Silvex or 2,4,5-TP acid	Silvex
T acid,2,4,5-	T, 2,4,5-
TCDD	Tetrachlorodibenzo-p-dioxin, 2,3,7,
Tetrachloroethene,1,1,2,2-	Tetrachloroethylene
Tetrachloromethane	Carbon tetrachloride
Tetraethyl ester pyrophosphoric ac.	Tetraethyl pyrophosphate
Tetraethyl plumbane	Tetraethyl lead
Thioacetamide	Ethanethioamide
Thiocarbamide	Thiourea
Thiophenol	BenzenthioI
Thiram	Bis(dimethylthiocarbamoyl)disulfide
Toluenediamine	Diaminotoluene
Tribromomethane	Bromoform
Trichloroethane,1,1,1-	Methyl chloroform
Trichloroethene	Trichloroethylene
Trichlorofluoromethane	Trichloromonofluoromethane
Trichloromethane	Chloroform
Trimethyl Cyclohexenone	Isophorone
Trinitrate-1,2,3-Propanetriol	Nitroglycerine
Vanadium pentoxide	Vanadium (V) oxide
Vinylidene chloride	Dichloroethylene, 1,1-
(1,1-Biphenyl)-4,4-diamine	Benzidine

SYNONYM	CASRN	NAME	FORMULA
Acetaldehyde	75070	Ethanal	CH3CHO
Acetamide,N-9H-fluoren-2-yl	53963	Acetylaminofluorene, 2-	
Acetamide,N-(4-ethoxyphenyl)-	62442	Phenacetin	C10H13NO2
Acetone	67641	Propanone, 2-	CH3COCH3
Acetonitrile	75058	Ethanenitrile	CH3CN
Acetyl chloride	75365	Ethanoyl chloride	CH3COCl
Acrolein	107028	Propenal, 2-	CH2CHCHO
Acrylonitrile	107131	Propenenitrile, 2-	CH2CHCN
Allyl alcohol	107186	Propen-1-ol, 2-	CH2CHCH2OH
allylbenzene,1,2-Methylenedioxy-4-	94597	Safrole	
Amitrole	61825	Triazol-3-amine, 1H-1,2,4-	C2H4N4
Aniline	62533	Benzenamine	C6H7N
Aroclors	1336363	Polychlorinated biphenyls (PCB's)	
Arsenic pentoxide	1303282	Arsenic (V) oxide	As2O5
Benzanthracene,1,2-	56553	Benz(a)anthracene	C18H12
Benzenediol,1,3-	108463	Resorcinol	C6H6O2
Benzo(a)fluoranthene,2,3-	205992	Benzo(b)fluoranthene	
Benzoquinone,p-	106514	Cyclohexadienedione, 1,4-	
Benzo[a]pyrene	50328	Benzopyrene, 3,4-	C20H12
Bromomethane	74839	Methyl Bromide	CH3Br
Butyl alcohol,-n	71363	Butanol, 1-	CH3CH2CH2CH2OH
Butyl phthalate,n-	84742	Dibutyl phthalate	1,2-(C4H9OOC)2C6H4
carbamide,N-ethyl-N-nitroso-	759739	Nitroso-N-ethylurea, N-	C3H7N3O2
carbamide,N-Methyl-N-nitroso-	684935	Nitroso-N-methylurea, N-	H2NCON(NO)CH3
Carbon bisulfide	75150	Carbon disulfide	CS2
Chlorobenzenamine,4-	106478	Chloroaniline, p-	C6H6ClN
Chlorobenzilate	510156	Ethyl 4,4'-dichlorobenzilate	
Chloroethene	75014	Vinylchloride	CH2CHCl
Chloroethoxyethene,2-	110758	Chloroethyl vinyl ether, 2-	C1CH2CH2OCHCH2
Chloromethane	74873	Methyl chloride	CH3Cl
Chloromethylbenzene	100447	Benzyl chloride	C6H5CH2Cl
Chloronaphthalene,beta-	91587	Chloronaphthalene, 2-	C10H7Cl

SYNONYM	CASRN	NAME	FORMULA
Chlorophenol, o-	95578	Chlorophenol, 2-	C6H5ClO
Chrysene	218019	Benzphenanthrene, 1,2-	C18H12
Cresylic acid	1319773	Cresol(s)	
Cresylic acid, o-	95487	Cresol-o	C7H8O
Cresylic acid, p-	106445	Cresol-p	C7H8O
Crotonaldehyde	123739	Butenal, 2-	CH3CHCHCHO
Cyanogen chloride	506774	Chlorine cyanide	CNCl
D Acid, 2,4-	94757	Dichlorophenoxyacetic acid, 2,4-	
Dalapon	75990	Dichloropropionic acid, 2,2-	C3H4Cl2O2
DDD, 4,4 DDD, TDE	72548	Dichlorodiphenyl dichloroethane	C14H10Cl4
DDE	72559	DDE, 4,4'-	
DDT	50293	Dichloro diphenyl trichloroethane	C14H9Cl5
Diazoacetate (ester) L-Serine	115026	Azaserine	C5H7N3O4
Dibenzanthracene, 1,2:5,6-	53703	Dibenzo[a,h]anthracene	C22H14
Dibenzene Chloride	98884	Benzoyl chloride	C7H5ClO
Dibenzopyrene, 1,2:7,8-	189559	Dibenz[a,i]pyrene	
Dibromoethane, 1,2-	106934	Ethylene dibromide	BrCH2CH2Br
Dibromomethane	74953	Methylene bromide	
Dichlorobenzene, 1,2-	95501	Dichlorobenzene, o-	C6H4Cl2
Dichlorobenzene, 1,3-	541731	Dichlorobenzene, m-	C6H4Cl2
Dichloroethyl ether	111444	Bis(2-chloroethyl) ether	C4H8Cl2O
Dichloromethane	75092	Methylene chloride	CH2Cl2
Dicofol	115322	Kelthane	C14H9Cl5O
Diepoxybutane, 1,2:3,4-	1464535	Bioxirane, 2,2'-	
Diethylhydrazine, 1,2-	1615801	Diethylhydrazine, N,N'-	C2H5NHNHC2H5
Diisocyanatomethylbenzene, 2,4-	584849	Toluene diisocyanate	C9H6N2O2
Dimethyl ester sulfuric acid	77781	Dimethyl sulfate	(CH3)2SO4
Dimethylbenzene	1330207	Xylene	C6H4(CH3)2
Dimethylbenzene, m-	108383	Xylene, m-	C8H10
Dimethylbenzene, o-	95476	Xylene, o-	C8H10
Dimethylbenzene, p-	106423	Xylene, p-	C8H10
Dimethylnitrosamine	62759	Nitrosodimethylamine, N-	(CH3)2NNO

SYNONYM	CASRN	NAME	FORMULA
dinitrobenzene,1-Methyl-2,4-	121142	Dinitrotoluene, 2,4-	C7H6N2O4
dinitrobenzene,1-Methyl-2,6-	606202	Dinitrotoluene, 2,6-	C7H6N2O4
Dioxane,1,4-	123911	Diethylene dioxide, 1,4-	
Dioxide, 1,2-oxathiolane,2,2-	1120714	Propane sultone, 1,3-	
Epichlorohydrin	106898	Chloro-2,3-epoxypropane, 1-	C3H5ClO
ethanamine,N-Ethyl-N-nitroso-	55185	Nitrosodiethylamine, N-	C4H10N2O
ethanol,2,2'-(nitrosamino)bis	1116547	Nitrosodiethanolamine, N-	(HOCH2CH2)2NNO
Ethanone, 1 phenyl	98862	Acetophenone	
Ethanoyl bromide	506967	Acetyl bromide	CH3COBr
ethene,trans-1,2 dichloro	156605	Dichloroethylene-trans, 1,2-	
Ethyl chloride	75003	Chloroethane	C2H5Cl
Ethyl ester acetic acid	141786	Ethyl acetate	CH3COOC2H5
Ethyl ester carbamic acid	51796	Ethyl carbamate (Urethane)	C3H7NO2
Ethyl ester methanesulfonic acid	62500	Ethyl methanesulfonate	CH3SO2OCH2CH3
Ethylene dichloride	107062	Dichloroethane, 1,2-	C1CH2CH2Cl
Ethylenediamine tetraacetic acid	60004	EDTA	C10H16N2O8
Ethylenethiourea	96457	Imidazolidinethione, 2-	C3H6N2S
Ethylenimine	151564	Aziridine	C2H5N
Ethylidene dichloride	75343	Dichloroethane, 1,1-	
Fluoranthene	206440	Benzo(j,k)fluorene	
Fluoroacetamide,2-	640197	Fluoroacetamide	CH2FCONH2
Formic acid 90%	64186	Methanoic acid	HCOOH
Furfural	98011	Furancarboxaldehyde, 2-	C5H4O2
Furfuran	110009	Furan	
Gamma-BHC	58899	Lindane	C6H6Cl6
Hexachloroethane,1,1,1,2,2,2-	67721	Hexachloroethane	CCl3CCl3
Hexahydrobenzene	110827	Cyclohexane	C6H12
Hydrazine	302012	Diamine	H2NNH2
Hydrogen Chloride	7647010	Hydrochloric acid	HCL in H2O
Hydrogen cyanide	74908	Hydrocyanic acid	HCN
Hydrogen fluoride	7664393	Hydrofluoric acid	
Hydrosulfuric acid	7783064	Hydrogen sulfide	H2S

SYNONYM	CASRN	NAME	FORMULA
Hydroxybenzene	108952	Phenol	C6H6O
Hydroxydimethylarsine oxide	75605	Cacodylic acid	(CH3)2As(O)OH
Iodomethane	74884	Methyl iodide	CH3I
Iron dextran	9004664	Ferric dextran	
Maleic anhydride	108316	Furandione, 2,5-	C4H2O3
mercury,(Aceto-o)phenyl-	62384	Phenylmercuric acetate	C8H8HgO2
methanamine,N-Methyl	124403	Dimethylamine	(CH3)2NH
Methanol	67561	Methyl alcohol	CH3OH
Methyl ester isocyanic acid	624839	Methyl isocyanate	
Methyl ethyl ketone	78933	Butanone,2-	CH3COCH2CH3
Methyl ethyl ketone peroxide	1338234	Butanone peroxide, 2-	
Methyl isobutyl ketone	108101	Methyl-2-pentanone, 4-	CH3COCH2CH(CH3)2
Methylamine	74895	Monomethylamine	CH3NH2
Methylbenzene	108883	Toluene	C7H8
Methylene oxide	50000	Formaldehyde	CH2O
Methylethylbenzene,1-	98828	Cumene	C9H12
Methylmercaptan	74931	Methanethiol	CH3SH
methylphenol,2,4-Dinitro-6-	534521	Dinitro-o-cresol, 4,6-	C7H6N2O5
methylpropanenitrile,2-hydroxy-2-	75865	Acetone cyanohydrin	(CH3)2C(OH)CN
methylpropane,1-Amino-2-	78819	iso-Butylamine	(CH3)2CHCH2NH2
Naphthalamine,alpha-	134327	Naphthylamine, 1-	C10H9N
Naphthylamine,2-	91598	Naphthylamine, beta-	C10H9N
Nitrobenzenamine,4-	100016	Nitroaniline, p-	C6H6N2O2
Nitrogen (II) oxide	10102439	Nitric oxide	NO
Nitrogen (IV) oxide	10102440	Nitrogen dioxide	NO2
Nitrogen (IV) oxide	10544726	Nitrogen dioxide	NO2
Nitrophenol, 4-	100027	Nitrophenol, p-	C6H5NO3
Nitrophenol,2-	88755	Nitrophenol, o-	C6H5NO3
nitrosoethenamine,N-Methyl-N-	4549400	Nitrosomethylvinylamine, N-	
nitrosopyridine,Hexahydro-N-	100754	Nitrosopiperidine, N-	
nitrosopyrrole,Tetrahydro-N-	930552	N-Nitrosopyrrolidine	C4H8N2O
Octachlorocamphene	8001352	Toxaphene	C10H10OCl8

SYNONYM	CASRN	NAME	FORMULA
Osmium tetroxide	20816120	Osmium oxide	OsO4
Oxirane	75218	Ethylene oxide	C2H4O
oxybisethane,1,1-	60297	Ethyl ether	C2H5OC2H5
Oxybis(2-chloropropane),2,2-	108601	Bis(2-chloroisopropyl) ether	
Oxybis(chloromethane)	542881	Bis(chloromethyl)ether	(CH2Cl)2O
Pb	7439921	Lead	
Pentadiene,1,3-	504609	Methylbutadiene, 1-	
phenylazobenzenamine,N-N-dimethyl-4	60117	Dimethylaminoazobenzene	C14H15N3
Phosgene	75445	Carbonyl chloride	Cl2CO
Phosphine	7803512	Hydrogen phosphide	PH3
Phosphorus pentasulfide	1314803	Phosphorus sulfide	P2S5
Phosphoryl Chloride	10025873	Phosphorus oxychloride	POCl3
phthalate,Di-sec-octyl	117817	Bis(2-ethylhexyl)phthalate	C24H38O4
propanal,2,3-Epoxy-1-	765344	Glycidylaldehyde	C3H6O2
Propanamine,1-	107108	Propylamine, n-	
Propanamine,n-propyl-1-	142847	Dipropylamine	
Propanenitrile, 3-chloro	542767	Chloropropionitrile, 3-	
Propane, 2-nitro	79469	Nitropropane, 2-	CH3CH(NO2)CH3
Propanoic acid, ethyl ester 2-	140885	Ethyl acrylate	CH2CHCOOCH2CH3
propanol,2-Methyl-1-	78831	iso-butyl alcohol	(CH3)2CHCH2OH
Propargyl alcohol	107197	Propyn-1-ol, 2-	HCCCH2OH
Propenamide,2-	79061	Acrylamide	CH2CHCONH2
propenenitrile,2-Methyl-2-	126987	Methacrylonitrile	CH2C(CH3)CN
Propenoic acid,2-	79107	Acrylic acid	CH2CHCO2H
Propenoic acid,2-Methylethylether 2	97632	Ethyl methacrylate	
propylamine,N-Nitrosodi-n-	621647	Di-n-propylnitrosamine	
propylbenzene,1,2-Methylenedioxy-4-	94586	Dihydrosafrole	
Propylene dichloride	78875	Dichloropropane, 1,2-	CH3CHClCH2Cl
Propylenimine,1,2-	75558	Methylaziridine, 2-	
pyrene,1,10-(1,2-Phenylene)	193395	Indeno(1,2,3-cd)pyrene	
Pyridinamine,4-	504245	Aminopyridine, 4-	C5H6N2
Pyridine, 2-methyl	109068	Picoline, 2-	

SYNONYM	CASRN	NAME	FORMULA
Pyrrolidone,1-Methyl-2-(3-)pyridyl)	54115	Nicotine and salts	C10H14N2
Silvex or 2,4,5-TP acid	93721	Silvex	C9H7Cl3O3
T acid,2,4,5-	93765	T, 2,4,5-	C8H5Cl3O3
TCDD	1746016	Tetrachlorodibenzo-p-dioxin, 2,3,7,	C12H4Cl4O
Tetrachloroethene,1,1,2,2-	127184	Tetrachloroethylene	C12Cl4
Tetrachloromethane	56235	Carbon tetrachloride	CCl4
Tetraethyl ester pyrophosphoric ac.	107493	Tetraethyl pyrophosphate	C8H20O7P2
Tetraethyl plumbane	78002	Tetraethyl lead	Pb(C2H5)4
Thioacetamide	62556	Ethanethioamide	CH3CSNH2
Thiocarbamide	62566	Thiourea	H2NCSNH2
Thiophenol	108985	Benzenthioi	C6H5SH
Thiram	137268	Bis(dimethylthiocarbamoyl)disulfide	C6H12N2S4
Toluenediamine	95807	Diaminotoluene	
Tribromomethane	75252	Bromoform	CHBr3
Trichloroethane,1,1,1-	71556	Methyl chloroform	CH3CCl3
Trichloroethene	79016	Trichloroethylene	
Trichlorofluoromethane	75694	Trichloromonofluoromethane	CCl3F
Trichloromethane	67663	Chloroform	CHCl3
Trimethyl Cyclohexenone	78591	Isophorone	
Trinitrate-1,2,3-Propanetriol	55630	Nitroglycerine	C3H5N3O9
Vanadium pentoxide	1314621	Vanadium (V) oxide	V2O5
Vinylidene chloride	75354	Dichloroethylene, 1,1-	CH2=CCl2
(1,1-Biphenyl)-4,4-diamine	92875	Benzidine	C12H12N2

A.5.1

ALPHABETICAL LISTING OF CASRN, SYNONYM AND FORMULA

CASRN	NAME	SYNONYM	FORMULA
54197	Acetic Acid		CH ₃ COOH
108247	Acetic anhydride		(CH ₃ CO) ₂ O
75865	Acetone cyanohydrin	2-hydroxy-2-methylpropanenitrile	(CH ₃) ₂ C(OH)CN
98862	Acetophenone	Ethanone, 1 phenyl	
506967	Acetyl bromide	Ethanoyl bromide	CH ₃ COBr
53963	Acetylaminofluorene, 2-	Acetamide, N-9H-fluoren-2-yl	
79061	Acrylamide	2-Propenamide	CH ₂ CHCONH ₂
79107	Acrylic acid	2-Propenoic acid	CH ₂ CHCO ₂ H
116063	Aldicarb		C ₇ H ₁₄ N ₂ O ₂ S
309002	Aldrin		C ₁₂ H ₈ Cl ₆
107051	Allyl chloride		CH ₂ CHCH ₂ Cl
20859738	Aluminum phosphide		AlP
10043013	Aluminum sulfate		Al ₂ (SO ₄) ₃
504245	Aminopyridine, 4-	4-Pyridinamine	C ₅ H ₆ N ₂
7664417	Ammonia		NH ₃
631618	Ammonium acetate		CH ₃ COONH ₄
1341497	Ammonium bifluoride		NH ₄ HF ₂
10192300	Ammonium bisulfite		NH ₄ HSO ₃
1111780	Ammonium carbamate		NH ₂ COONH ₄
12125029	Ammonium chloride		NH ₄ Cl
13826830	Ammonium fluoborate		
12125018	Ammonium fluoride		NH ₄ F
1336216	Ammonium hydroxide		
6009707	Ammonium oxalate		NH ₄ OCCOONH ₄
16919190	Ammonium silicofluoride		F ₆ H ₈ N ₂ Si
7773060	Ammonium sulfamate		NH ₄ SO ₃ NH ₂
12135761	Ammonium sulfide		(NH ₄) ₂ S
10196040	Ammonium sulfite		(NH ₄) ₂ SO ₃
1762954	Ammonium thiocyanate		NH ₄ SCN
7783188	Ammonium thiosulfate		(NH ₄) ₂ SO ₃
7803556	Ammonium vanadate		NH ₄ VO ₃
628637	Amyl acetate		

CASRN	NAME	SYNONYM	FORMULA
123922	Amyl acetate, iso-		CH3C00CH2CH2CH(CH3)
626380	Amyl acetate, sec-		C7H14O2
625161	Amyl acetate, tert-		C7H14O2
120127	Anthracene		C14H10
7440360	Antimony		Sb
10025919	Antimony trichloride		SbCl3
1309644	Antimony trioxide		Sb2O3
7440382	Arsenic		As
7778394	Arsenic acid		H3AsO4
1303282	Arsenic (V) oxide	Arsenic pentoxide	As2O5
1332214	Asbestos		
492808	Auramine		
115026	Azaserine	Diazoacetate (ester) L-Serine	C5H7N3O4
151564	Aziridine	Ethylenimine	C2H5N
62533	Benzenamine	Aniline	C6H7N
71432	Benzene		C6H6
108985	Benzenthioi	Thiophenol	C6H5SH
92875	Benzidine	(1,1-Biphenyl)-4,4-diamine	C12H12N2
65850	Benzoic Acid		C7H6O2
100470	Benzonitrile		C6H5CN
50328	Benzo[pyrene, 3,4-	Benzo[a]pyrene	C20H12
98884	Benzoyl chloride	Dibenzene Chloride	C7H5ClO
205992	Benzo(b)fluoranthene	2,3-Benzofluoranthene	
206440	Benzo(j,k)fluorene	Fluoranthene	
191242	Benzo[ghi]perylene		
218019	Benzphenanthrene, 1,2-	Chrysene.	C18H12
100447	Benzyl chloride	Chloromethylbenzene	C6H5CH2Cl
56553	Benz(a)anthracene	1,2-Benzanthracene	C18H12
7440417	Beryllium		Be
1464535	Bioxirane, 2,2'-	1,2:3,4-Diepoxybutane	
111911	Bis(2-chloroethoxy) methane		C5H10Cl2O
111444	Bis(2-chloroethyl) ether	Dichloroethyl ether	C4H8Cl2O

CASRN	NAME	SYNONYM	FORMULA
108601	Bis(2-chloroisopropyl) ether	2,2-Oxybis(2-chloropropane)	
117817	Bis(2-ethylhexyl)phthalate	Di-sec-octyl phthalate	C24H38O4
542881	Bis(chloromethyl)ether	Oxybis(chloromethane)	(CH2Cl)2O
137268	Bis(dimethylthiocarbamoyl)disulfide	Thiram	C6H12N2S4
75252	Bromoform	Tribromomethane	CHBr3
71363	Butanol, 1-	Butyl alcohol-n	CH3CH2CH2CH2OH
1338234	Butanone peroxide, 2-	Methyl ethyl ketone peroxide	
78933	Butanone, 2-	Methyl ethyl ketone	CH3COCH2CH3
123739	Butenal, 2-	Crotonaldehyde	CH3CHCHCHO
123864	Butyl acetate		CH3COO(CH2)3CH3
110190	Butyl acetate, iso-		CH3COOCH2CH(CH3)2
105464	Butyl acetate, sec-		CH3COOCH(CH3)CH2CH3
540885	Butyl acetate, tert-		CH3COOC(CH3)3
85687	Butyl benzyl phthalate		
109739	Butylamine		C4H11N
513495	Butylamine, sec-		CH3CH2CH(NH2)CH3
13952846	Butylamine, sec-		CH3CH2CH(NH2)CH3
75649	Butylamine, tert-		(CH3)3CNH2
107926	Butyric acid		CH3CH2CH2CO2H
75605	Cacodylic acid	Hydroxydimethylarsine oxide	(CH3)2As(O)OH
7440439	Cadmium		Cd
75207	Calcium carbide		CaC2
26264062	Calcium dodecylbenzene sulfonate		
7778543	Calcium hypochlorite		Ca(OCl)2
133062	Captan		C9H8Cl3NO2S
63252	Carbaryl		C12H11NO2
1563662	Carbofuran		C12H15NO3
75150	Carbon disulfide	Carbon bisulfide	CS2
56235	Carbon tetrachloride	Tetrachloromethane	CCl4
75445	Carbonyl chloride	Phosgene	C12CO
305033	Chlorambucil		C14H19Cl2NO2
57749	Chlordane		C10H6Cl8

CASRN	NAME	SYNONYM	FORMULA
7782505	Chlorine		Cl ₂
506774	Chlorine cyanide	Cyanogen chloride	CNCl
494031	Chlornaphazine		C ₁₄ H ₁₅ Cl ₂ N
107200	Chloroacetaldehyde		ClCH ₂ CHO
106478	Chloroaniline, p-	4-Chlorobenzenamine	C ₆ H ₆ ClN
108907	Chlorobenzene		C ₆ H ₅ Cl
124481	Chlorodibromomethane		ClCHBr ₂
75003	Chloroethane	Ethyl chloride	C ₂ H ₅ Cl
110758	Chloroethyl vinyl ether, 2-	2-Chloroethoxyethene	ClCH ₂ CH ₂ OCHCH ₂
67663	Chloroform	Trichloromethane	CHCl ₃
91587	Chloronaphthalene, 2-	beta-Chloronaphthalene	C ₁₀ H ₇ Cl
95578	Chlorophenol, 2-	o-Chlorophenol	C ₆ H ₅ ClO
542767	Chloropropionitrile, 3-	Propanenitrile, 3-chloro	
7790945	Chlorosulfonic acid		ClHO ₃ S
106898	Chloro-2,3-epoxypropane, 1-	Epichlorohydrin	C ₃ H ₅ ClO
2921882	Chlorpyrifos		C ₉ H ₁₁ Cl ₃ N ₃ O ₃ PS
7738945	Chromic acid		CrO ₃
7440473	Chromium		Cr
10049055	Chromous chloride		CrCl ₂
7789437	Cobaltous bromide		CoBr ₂
544183	Cobaltous formate		Co(HCOO) ₆
14017415	Cobaltous sulfamate		
7440508	Copper		Cu
544923	Copper Cyanides		
56724	Coumaphos		C ₁₄ H ₁₆ ClO ₅ PS
8001589	Creosote		HOC ₆ H ₄ CH ₃
1319773	Cresol(s)	Cresylic acid	
95487	Cresol-o	Cresylic acid, o-	C ₇ H ₈ O
106445	Cresol-p	Cresylic acid, p-	C ₇ H ₈ O
98828	Cumene	1-Methylethylbenzene	C ₉ H ₁₂
7447394	Cupric chloride		CuCl ₂
7758987	Cupric sulfate		CuSO ₄

CASRN	NAME	SYNONYM	FORMULA
57125	Cyanides-Soluble Salts/Complexes		
460195	Cyanogen		NCCN
106514	Cyclohexadienedione, 1,4-	Ben zoquinone-p	
110827	Cyclohexane	Hexahydrobenzene	C6H12
108941	Cyclohexanone		C6H10O
50180	Cyclophosphamide		C7H15Cl2N2O2P
1929738	D Esters, 2,4-		
1928616	D Esters, 2,4-		
53467111	D Esters, 2,4-		
25168267	D Esters, 2,4-		
1928387	D Esters, 2,4-		
2971382	D Esters, 2,4-		
94791	D Esters, 2,4-		
1320189	D Esters, 2,4-		
94804	D Esters, 2,4-		
94111	D Esters, 2,4-		
20830813	Daunomycin		C27H29NO10
72559	DDE, 4,4'-	DDE	
302012	Diamine	Hydrazine	H2NNH2
95807	Diaminotoluene	Toluenediamine	
333415	Diazinon		C12H21N2O3PS
53703	Dibenzo[a,h]anthracene	1,2:5,6-Diben zanthracene	C22H14
189559	Dibenz[a,i]pyrene	1,2:7,8-Diben zopyrene	
96128	Dibromo-3-chloropropane, 1,2-		C1CH2CHBrCH2Br
84742	Dibutyl phthalate	n-Butyl phthalate	1,2-(C4H9OOC)2C6H4
1918009	Dicamba		C8H6Cl2O3
1194656	Dichlobenil		C7H3Cl2N
117806	Dichlone		C10H4Cl2O2
50293	Dichloro diphenyl trichloroethane	DDT	C14H9Cl5
25321226	Dichlorobenzene (mixed)		
541731	Dichlorobenzene, m-	Dichlorobenzene, 1,3-	C6H4Cl2
95501	Dichlorobenzene, o-	Dichlorobenzene, 1,2-	C6H4Cl2

CASRN	NAME	SYNONYM	FORMULA
91941	Dichlorobenzidine, 3,3'-		C12H10Cl2N2
75274	Dichlorobromomethane		
75718	Dichlorodifluoromethane		CCl2F2
72548	Dichlorodiphenyl dichloroethane	DDD, 4,4 DDD, TDE	C14H10Cl4
75343	Dichloroethane, 1,1-	Ethylidene dichloride	
107062	Dichloroethane, 1,2-	Ethylene dichloride	C1CH2CH2Cl
75354	Dichloroethylene, 1,1-	Vinylidene chloride	CH2=CCl2
156605	Dichloroethylene-trans, 1,2-	ethene,trans-1,2 dichloro	
120832	Dichlorophenol, 2,4-		C6H4Cl2O
94757	Dichlorophenoxyacetic acid, 2,4-	2,4-D Acid	
26638197	Dichloropropane		
78999	Dichloropropane, 1,1-		CH3CH2CHCl2
78875	Dichloropropane, 1,2-	Propylene dichloride	CH3CHClCH2Cl
142289	Dichloropropane, 1,3-		C1CH2CHCHCl
8003198	Dichloropropane-Dichloropropene-MIX		
26952238	Dichloropropene(s)		C1CH2CHCHCl
542756	Dichloropropene, 1,3-		C1CH2CHCHCl
78886	Dichloropropene, 2,3-		C1CH2CClCH2
75990	Dichloropropionic acid, 2,2-	Dalapon	C3H4Cl2O2
62737	Dichlorvos		C4H7Cl2O4P
60571	Dieldrin		C12H8Cl6O
84662	Diethyl phthalate		C12H14O4
109897	Diethylamine		(C2H5)2NH
692422	Diethylarsine		C4H11As
123911	Diethylene dioxide, 1,4-	1,4-Dioxane	
1615801	Diethylhydrazine, N,N'-	1,2-Diethylhydrazine	C2H5NHNHC2H5
56531	Diethylstilbestrol		C18H20O2
94586	Dihydrosafrole	1,2-Methylenedioxy-4-propylbenzene	
60515	Dimethoate		C5H12N03PS2
119904	Dimethoxybenzidine, 3,3'-		C14H16N2O2
131113	Dimethyl phthalate		C10H10O4
77781	Dimethyl sulfate	Dimethyl ester sulfuric acid	(CH3)2SO4

CASRN	NAME	SYNONYM	FORMULA
124403	Dimethylamine	N-Methyl methanamine	(CH ₃) ₂ NH
60117	Dimethylaminoazobenzene	N-N-dimethyl-4-phenylazobenzene	C ₁₄ H ₁₅ N ₃
119937	Dimethylbenzidine, 3,3'-		C ₁₄ H ₁₆ N ₂
79447	Dimethylcarbamoyl chloride		
57147	Dimethylhydrazine, 1,1-		(CH ₃) ₂ NNH ₂
540738	Dimethylhydrazine, 1,2-		CH ₃ NHNHCH ₃
25154545	Dinitrobenzene (mixed)		C ₆ H ₄ N ₂ O ₄
99650	Dinitrobenzene, m-		C ₆ H ₄ N ₂ O ₄
528290	Dinitrobenzene, o-		C ₆ H ₄ N ₂ O ₄
100254	Dinitrobenzene, p-		C ₆ H ₄ N ₂ O ₄
51285	Dinitrophenol, 2,4-		C ₆ H ₄ N ₂ O ₅
329715	Dinitrophenol, 2,5-		C ₆ H ₄ N ₂ O ₅
573568	Dinitrophenol, 2,6-		C ₆ H ₄ N ₂ O ₅
25321146	Dinitrotoluene		
121142	Dinitrotoluene, 2,4-	1-Methyl-2,4-dinitrobenzene	C ₇ H ₆ N ₂ O ₄
606202	Dinitrotoluene, 2,6-	1-Methyl-2,6-dinitrobenzene	C ₇ H ₆ N ₂ O ₄
610399	Dinitrotoluene, 3,4-		C ₇ H ₆ N ₂ O ₄
534521	Dinitro-o-cresol, 4,6-	2,4-Dinitro-6-methylphenol	C ₇ H ₆ N ₂ O ₅
88857	Dinoseb		C ₁₀ H ₁₂ N ₂ O ₅
142847	Dipropylamine	1-Propanamine, n-propyl	
2764729	Diquat		
298044	Disulfoton		C ₈ H ₁₉ O ₂ PS ₂
330541	Diuron		C ₉ H ₁₀ Cl ₂ N ₂ O
117840	Di-n-octyl phthalate		
621647	Di-n-propylnitrosamine	N-Nitrosodi-n-propylamine	
27176870	Dodecylbenzenesulfonic acid		
60004	EDTA	Ethylenediamine tetraacetic acid	C ₁₀ H ₁₆ N ₂ O ₈
115297	Endosulfan		C ₉ H ₆ Cl ₆ O ₃ S
72208	Endrin		C ₁₂ H ₈ Cl ₆ O
75070	Ethanal	Acetaldehyde	CH ₃ CHO
75058	Ethanenitrile	Acetonitrile	CH ₃ CN
62556	Ethanethioamide	Thioacetamide	CH ₃ CSNH ₂

CASRN	NAME	SYNONYM	FORMULA
75365	Ethanoyl chloride	Acetyl chloride	CH ₃ COCl
563122	Ethion		C ₉ H ₂₂ O ₄ P ₂ S ₄
510156	Ethyl 4,4'-dichlorobenzilate	Chlorobenzilate	
141786	Ethyl acetate	Ethyl ester acetic acid	CH ₃ COOC ₂ H ₅
140885	Ethyl acrylate	2-Propanoic acid, ethyl ester	CH ₂ CHCOOCH ₂ CH ₃
51796	Ethyl carbamate (Urethane)	Ethyl ester carbamic acid	C ₃ H ₇ N ₂ O ₂
60297	Ethyl ether	1,1-oxybisethane	C ₂ H ₅ OC ₂ H ₅
97632	Ethyl methacrylate	2-Propenoic acid, 2-Methylethylether	
62500	Ethyl methanesulfonate	Ethyl ester methanesulfonic acid	CH ₃ SO ₂ OC ₂ H ₅
100414	Ethylbenzene		C ₆ H ₅ CH ₃
106934	Ethylene dibromide	1,2-Dibromoethane	BrCH ₂ CH ₂ Br
75218	Ethylene oxide	Oxirane	C ₂ H ₄ O
107153	Ethylenediamine		H ₂ NCH ₂ CH ₂ NH ₂
7705080	Ferric chloride		FeCl ₃
9004664	Ferric dextran	Iron dextran	
10421484	Ferric Nitrate		Fe(NO ₃) ₃
7758943	Ferrous chloride		FeCl ₂
7720787	Ferrous sulfate		FeSO ₄
7782630	Ferrous sulfate		FeSO ₄
7782414	Fluorine		F ₂
640197	Fluoroacetamide	2-Fluoroacetamide	CH ₂ FC(=O)NH ₂
62748	Fluoroacetic acid sodium salt		
50000	Formaldehyde	Methylene oxide	CH ₂ O
110178	Fumaric Acid		C ₄ H ₄ O ₄
110009	Furan	Furfuran	
98011	Furancarboxaldehyde, 2-	Furfural	C ₅ H ₄ O ₂
108316	Furandione, 2,5-	Maleic anhydride	C ₄ H ₂ O ₃
765344	Glycidylaldehyde	2,3-Epoxy-1-propanal	C ₃ H ₄ O ₂
86500	Guthion		C ₁₀ H ₁₂ N ₃ O ₃ PS ₂
76448	Heptachlor		C ₁₀ H ₅ Cl ₇
118741	Hexachlorobenzene		C ₆ Cl ₆
87683	Hexachlorobutadiene		CCl ₂ CClCClCCl ₂

CASRN	NAME	SYNONYM	FORMULA
77474	Hexachlorocyclopentadiene		
67721	Hexachloroethane	1,1,1,2,2,2-Hexachloroethane	CC13CC13
7647010	Hydrochloric acid	Hydrogen Chloride	HCL in H2O
74908	Hydrocyanic acid	Hydrogen cyanide	HCN
7664393	Hydrofluoric acid	Hydrogen fluoride	
7803512	Hydrogen phosphide	Phosphine	PH3
7783064	Hydrogen sulfide	Hydrosulfuric acid	H2S
96457	Imidazolidinethione, 2-	Ethylenethiourea	C3H6N2S
193395	Indeno(1,2,3-cd)pyrene	1,10-(1,2-Phenylene)pyrene	
78591	Isophorone	Trimethyl Cyclohexenone	
78795	Isoprene		C5H8
42504461	Isopropanolamine dodecylbenzene sul		
120581	Isosafrole		C10H10O2
78831	iso-butyl alcohol	2-Methyl-1-propanol	(CH3)2CHCH2OH
78819	iso-Butylamine	1-Amino-2-methylpropane	(CH3)2CHCH2NH2
115322	Kelthane	Dicofol	C14H9C15O
143500	Kepone		C10C1100
303344	Lasiocarpine		C21H33NO7
7439921	Lead	Pb	
7446142	Lead sulfate		PbSO4
58899	Lindane	Gamma-BHC	C6H6C16
121755	Malathion		C10H19O6PS2
110167	Maleic Acid		C4H4O4
148823	Melphalan		C13H18C12N2O2
2032657	Mercaptodimethur		C11H15NO2S
7439976	Mercury		Hg
126987	Methacrylonitrile	2-Methyl-2-propenenitrile	CH2C(CH3)CN
74931	Methanethiol	Methylmercaptan	CH3SH
64186	Methanoic acid	Formic acid 90%	HCOOH
16752775	Methomyl		C5H10N2O2S
72435	Methoxychlor		C16H15C13O2
67561	Methyl alcohol	Methanol	CH3OH

CASRN	NAME	SYNONYM	FORMULA
74839	Methyl Bromide	Bromomethane	CH3Br
74873	Methyl chloride	Chloromethane	CH3Cl
71556	Methyl chloroform	1,1,1-Trichloroethane	CH3CCl3
60344	Methyl hydrazine		CH6N2
74884	Methyl iodide	Iodomethane	CH3I
624839	Methyl isocyanate	Methyl ester isocyanic acid	
80626	Methyl methacrylate		C5H8O2
298000	Methyl parathion		C8H10N05PS
75558	Methylaziridine, 2-	1,2-Propylenimine	
504609	Methylbutadiene, 1-	1,3-Pentadiene	
74953	Methylene bromide	Dibromomethane	
75092	Methylene chloride	Dichloromethane	CH2Cl2
101144	Methylenebis(2-chloroaniline), 4,4'		C13H12Cl2N2
56042	Methylthiouracil		C5H6N2OS
108101	Methyl-2-pentanone, 4-	Methyl isobutyl ketone	CH3COCH2CH(CH3)2
7786347	Mevinphos		C7H13O6P
315184	Mexacarbate		C12H18N2O2
50077	Mitomycin C		C15H18N4O5
75047	Monoethylamine		C2H5NH2
74895	Monomethylamine	Methylamine	CH3NH2
300765	Naled		C4H7Br2Cl2O4P
91203	Naphthalene		C10H8
1338245	Naphthenic acid		
134327	Naphthylamine, 1-	alpha-Naphthylamine	C10H9N
91598	Naphthylamine, beta-	2-Naphthylamine	C10H9N
86884	Naphthylthiourea, alpha-		C11H10N2S
7440020	Nickel		Ni
7718549	Nickel chloride		NiCl2
12054487	Nickel hydroxide		N:(OH)2
7786814	Nickel sulfate		NiSO4
54115	Nicotine and salts	1-Methyl-2-(3-pyridyl)Pyrrolidone	C10H14N2
7697372	Nitric acid		HNO3

CASRN	NAME	SYNONYM	FORMULA
10102439	Nitric oxide	Nitrogen (II) oxide	NO
100016	Nitroaniline, p-	4-Nitrobenzenamine	C6H6N2O2
98953	Nitrobenzene		C6H5NO2
10544726	Nitrogen dioxide	Nitrogen (IV) oxide	NO2
10102440	Nitrogen dioxide	Nitrogen (IV) oxide	NO2
55630	Nitroglycerine	Trinitrate-1,2,3-Propanetriol	C3H5N3O9
25154556	Nitrophenol (mixed)		C6H5NO3
554847	Nitrophenol, m-		C6H5NO3
88755	Nitrophenol, o-	2-Nitrophenol	C6H5NO3
100027	Nitrophenol, p-	Nitrophenol, 4-	C6H5NO3
79469	Nitropropane, 2-	Propane, 2-nitro	CH3CH(NO2)CH3
1116547	Nitrosodiethanolamine, N-	2,2'-(nitrosamino)bis ethanol	(HOCH2CH2)2NNO
55185	Nitrosodiethylamine, N-	N-Ethyl-N-nitroso-ethanamine	C4H10N2O
62759	Nitrosodimethylamine, N-	Dimethylnitrosamine	(CH3)2NNO
86306	Nitrosodiphenylamine, N-		C6H5NHC6H4NO
4549400	Nitrosomethylvinylamine, N-	N-Methyl-N-nitrosoethenamine	
100754	Nitrosopiperidine, N-	Hexahydro-N-nitrosopyridine	
759739	Nitroso-N-ethylurea, N-	N-Ethyl-N-nitroso-carbamide	C3H7N3O2
684935	Nitroso-N-methylurea, N-	N-Methyl-N-nitroso-carbamide	H2NCON(NO)CH3
615532	Nitroso-N-methylurethane, N-		
1321126	Nitrotoluene		
99081	Nitrotoluene, m-		C7H7NO2
88722	Nitrotoluene, o-		C7H7NO2
99990	Nitrotoluene, p-		C7H7NO2
924163	N-Nitrosodi-n-butylamine		
930552	N-Nitrosopyrrolidine	Tetrahydro-N-nitrosopyrrole	C4H8N2O
152169	Octamethyldiphosphoramidate		C8H24N4O3P2
20816120	Osmium oxide	Osmium tetroxide	OsO4
30525894	Paraformaldehyde		(CH2O)n
56382	Parathion		C10H14N05PS
82688	Pentachloronitrobenzene		C6Cl5NO2
87865	Pentachlorophenol		C6HCl5O

CASRN	NAME	SYNONYM	FORMULA
52442	Phenacetin	N-(4-ethoxyphenyl)-Acetamide	C10H13NO2
85018	Phenanthrene		C14H10
108952	Phenol	Hydroxybenzene	C6H6O
62384	Phenylmercuric acetate	(Acetato-o)phenyl-mercury	C8H8HgO2
298022	Phorate		C7H17O2PS3
7664382	Phosphoric acid		H3PO4
7723140	Phosphorus		P
10025873	Phosphorus oxychloride	Phosphoryl Chloride	POCl3
1314803	Phosphorus sulfide	Phosphorus pentasulfide	P2S5
7719122	Phosphorus trichloride		PCl3
85449	Phthalic anhydride		C8H4O3
109068	Picoline, 2-	Pyridine, 2-methyl	
1336363	Polychlorinated biphenyls (PCB's)	Aroclors	
7778509	Potassium bichromate		K2Cr2O7
151508	Potassium cyanide		KCN
1310583	Potassium hydroxide		KOH
7722647	Potassium permanganate		KMnO4
23950585	Pronamide		
1120714	Propane sultone, 1,3-	2,2-Dioxide 1,2-oxathiolane	
67641	Propanone, 2-	Acetone	CH3COCH3
2312358	Propargite		
107028	Propenal, 2-	Acrolein	CH2CHCHO
107131	Propenenitrile, 2-	Acrylonitrile	CH2CHCN
107186	Propen-1-ol, 2-	Allyl alcohol	CH2CHCH2OH
79094	Propionic acid		CH3CH2COOH
123626	Propionic anhydride		(CH3CH2CO)2O
107108	Propylamine, n-	1-Propanamine	
75569	Propylene oxide		C3H6O
107197	Propyn-1-ol, 2-	Propargyl alcohol	HCCCH2OH
129000	Pyrene		C16H10
121299	Pyrethrins		
121211	Pyrethrins		C21H28O3

CASRN	NAME	SYNONYM	FORMULA
110861	Pyridine		C5H5N
91225	Quinoline		C9H7N
108463	Resorcinol	1,3-Benzenediol	C6H6O2
94597	Safrole	1,2-Methylenedioxy-4-allylbenzene	
7782492	Selenium		Se
7440224	Silver		Ag
506649	Silver cyanide		AgCN
7761888	Silver nitrate		AgNO3
93721	Silvex	Silvex or 2,4,5-TP acid	C9H7Cl3O3
7440235	Sodium		Na
7784465	Sodium arsenite		NaAsO2
26628228	Sodium azide		NaN3
10588019	Sodium bichromate		Cr2N2O27
7631905	Sodium bisulfite		HNaO3S
7775113	Sodium chromate		NaCrO4
143339	Sodium cyanide		NaCN
25155300	Sodium dodecylbenzene sulfonate		C12H25C6H4SO3Na
7681494	Sodium fluoride		NaF
16721805	Sodium hydrosulfide		HNaS
1310732	Sodium hydroxide		NaOH
7681529	Sodium hypochlorite		NaClO
124414	Sodium methylate		CH3ONa
7632000	Sodium nitrite		NaNO2
7558794	Sodium phosphate, dibasic		
7601549	Sodium phosphate, tribasic		Na3PO4
18883664	Streptozotocin		C8H15N3O7
57249	Strychnine and salts		C21H22N2O2
100425	Styrene		C6H5CHCH2
12771083	Sulfur monochloride		S2Cl2
8014957	Sulfuric Acid		H2SO4
7664939	Sulfuric acid		H2SO4
6369966	T amines, 2,4,5-		

CASRN	NAME	SYNONYM	FORMULA
3813147	T amines, 2,4,5-		
6369977	T amines, 2,4,5-		
1319728	T amines, 2,4,5-		
25168154	T esters, 2,4,5-		
93798	T esters, 2,4,5-		
61792072	T esters, 2,4,5-		
1928478	T esters, 2,4,5-		
2545597	T esters, 2,4,5-		
13560991	T salts, 2,4,5-		
1746016	Tetrachlorodibenzo-p-dioxin, 2,3,7,	TCDD	C12H4Cl4O
79345	Tetrachloroethane, 1,1,2,2-		C12CHClC12
127184	Tetrachloroethylene	1,1,2,2-Tetrachloroethene	C12CCCl2
78002	Tetraethyl lead	Tetraethyl plumbane	Pb(C2H5)4
107493	Tetraethyl pyrophosphate	Tetraethyl ester pyrophosphoric ac.	C8H20O7P2
3689245	Tetraethyldithiopyrophosphate		
109999	Tetrahydrofuran		C4H8O
509148	Tetranitromethane		C(NO2)4
7440280	Thallium		Tl
62566	Thiourea	Thiocarbamide	H2NCSNH2
108883	Toluene	Methylbenzene	C7H8
584849	Toluene diisocyanate	2,4-Diisocyanatomethylbenzene	C9H6N2O2
8001352	Toxaphene	Octachlorocamphene	C10H10OCl8
32534955	TP acid esters, 2,4,5-		
61825	Triazol-3-amine, 1H-1,2,4-	Amitrole	C2H4N4
52686	Trichlorfon		C4H8Cl3O4P
120821	Trichlorobenzene, 1,2,4-		C6H3Cl3
79005	Trichloroethane, 1,1,2-		CH2ClCHCl2
79016	Trichloroethylene	Trichloroethene	
75694	Trichloromonofluoromethane	Trichlorofluoromethane	CCl3F
25167822	Trichlorophenol		
15950660	Trichlorophenol, 2,3,4-		
933788	Trichlorophenol, 2,3,5-		C6H3Cl3O

CASRN	NAME	SYNONYM	FORMULA
933755	Trichlorophenol, 2,3,6-		C6H3Cl3O
95954	Trichlorophenol, 2,4,5-		C6H3Cl3O
88062	Trichlorophenol, 2,4,6-		C6H3Cl3O
609198	Trichlorophenol, 3,4,5-		C6H3Cl3O
27323417	Triethanolamine dodecylbenzene sulf		
121448	Triethylamine		(C2H5)3N
75503	Trimethylamine		(CH3)3N
126727	Tris(2,3-dibromopropyl) phosphate		C9H15Br6O4P
72571	Trypan Blue		C34H24N6Na4O14S4
93765	T, 2,4,5-	2,4,5-T acid	C8H5Cl3O3
66751	Uracil Mustard		C8H11Cl2N3O2
1314621	Vanadium (V) oxide	Vanadium pentoxide	V2O5
27774136	Vanadyl sulfate		
108054	Vinyl Acetate		CH3COOCHCH2
75014	Vinylchloride	Chloroethene	CH2CHCl
81812	Warfarin		C19H16O4
1330207	Xylene	Dimethylbenzene	C6H4(CH3)2
108383	Xylene, m-	Dimethylbenzene, m-	C8H10
95476	Xylene, o-	Dimethylbenzene, o-	C8H10
106423	Xylene, p-	Dimethylbenzene, p-	C8H10
1300716	Xylenol		(CH3)2C6H3OH
7440666	Zinc		Zn
7646857	Zinc chloride		ZnCl2
557211	Zinc cyanide		Zn(CN)2
1314847	Zinc phosphide		Zn3P2
7733020	Zinc sulfate		ZnSO4
16923958	Zirconium potassium fluoride		
10026116	Zirconium tetrachloride		ZrCl4

A.5.2

ALPHABETICAL LISTING
OF
MOLECULAR WEIGHT; PHASE, MELTING POINT
AND BOILING POINT

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr

Acenaphthene	154.21	solid	95		279	
Acetic Acid	60.05	liquid			118	
Acetic anhydride	102.09	liquid	-73		139	
Acetone cyanohydrin	85.1	liquid	-19		95	
Acetophenone	120.15	liquid			202.8	
Acetyl bromide	122.96	liquid	-96		76	
Acetylaminofluorene, 2-	223.28	solid	194			
Acrylamide	71.08	solid	84.5		125	25
Acrylic acid	72.06	liquid	13		141	
Aldicarb	190.25	solid	99.5			
Aldrin	364.93	solid	104			
Allyl chloride	76.53	liquid	-134.5		44.5	
Aluminum phosphide	57.96	solid				
Aluminum sulfate	342.15	solid				
Aminopyridine, 4-	94.12	solid	158.5		180	13
Ammonia	17.03	gas	-77.7		-33.35	
Ammonium acetate	77.08	solid	114			
Ammonium bifluoride	57.05	solid	124.6	760		
Ammonium bisulfite	99.1	solid				
Ammonium carbamate	78.06	solid				
Ammonium chloride	53.5	solid				
Ammonium fluoborate	104.8	solid				
Ammonium fluoride	37.04	solid				
Ammonium hydroxide	35.06	liquid	-77			
Ammonium oxalate	124.1	solid				
Ammonium silicofluoride	178.16	solid				
Ammonium sulfamate	114.13	solid	125			
Ammonium sulfide	68.15	solid	118			
Ammonium sulfite	116.14	solid				

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr
Acenaphthene	154.21	solid	95		279	
Acetic Acid	60.05	liquid			118	
Acetic anhydride	102.09	liquid	-73		139	
Acetone cyanohydrin	85.1	liquid	-19		95	
Acetophenone	120.15	liquid			202.8	
Acetyl bromide	122.96	liquid	-96		76	
Acetylaminofluorene, 2-	223.28	solid	194			
Acrylamide	71.08	solid	84.5		125	25
Acrylic acid	72.06	liquid	13		141	
Aldicarb	190.25	solid	99.5			
Aldrin	364.93	solid	104			
Allyl chloride	76.53	liquid	-134.5		44.5	
Aluminum phosphide	57.96	solid				
Aluminum sulfate	342.15	solid				
Aminopyridine, 4-	94.12	solid	158.5		180	13
Ammonia	17.03	gas	-77.7		-33.35	
Ammonium acetate	77.08	solid	114			
Ammonium bifluoride	57.05	solid	124.6	760		
Ammonium bisulfite	99.1	solid				
Ammonium carbamate	78.06	solid				
Ammonium chloride	53.5	solid				
Ammonium fluoborate	104.8	solid				
Ammonium fluoride	37.04	solid				
Ammonium hydroxide	35.06	liquid	-77			
Ammonium oxalate	124.1	solid				
Ammonium silicofluoride	178.16	solid				
Ammonium sulfamate	114.13	solid	125			
Ammonium sulfide	68.15	solid	118			
Ammonium sulfite	116.14	solid				

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr
Ammonium thiocyanate	76.12	solid	149			
Ammonium thiosulfate	148.21	solid				
Ammonium vanadate	116.99	solid				
Amyl acetate	130	liquid	-70.5		149.5	
Amyl acetate, iso-	130.18	liquid	-78.5		142	
Amyl acetate, sec-	130	liquid	-100		133.9	
Amyl acetate, tert-	130.2	liquid			132.2	741
Anthracene	178.22	solid	218		342	
Antimony	121.75	solid	630		1635	
Antimony trichloride	228.13	solid	73		223.5	
Antimony trioxide	291.52	solid	655		1425	
Arsenic	74.91	solid			613	
Arsenic acid	141.93	solid				
Arsenic (V) oxide	229.82	solid				
Asbestos		solid			2230	
Auramine	267.38	solid	136			
Azaserine	173.15	solid				
Aziridine	43.07	liquid	-72.2		56.5	
Benz enamine	93.12	liquid	-6		185	
Benz ene	78.11	liquid	5.5		80.1	
Benz enthiol	110.17	liquid	-15		168.3	
Benz idine	184.23	solid	117.5		400	
Benz oic Acid	122.12	solid	122.4		249.2	
Benz onitrile	103.12	liquid	-12.75		190.7	
Benz opyrene, 3,4-	252.3	solid	179		310	10
Benz oyl chloride	140.57	liquid	-1		197.2	
Benz o(b)fluoranthene	252.32	solid	168			
Benz o(j,k)fluorene	202.26	solid	120		375	
Benz o[ghi]perylene	276	liquid	222			

NAME	M.W.	PHASE	MELTING (C)	MELTING	BOILING (C)	BOILING
				POINT		PRESSURE

Benzphenanthrene, 1,2-	228.28	solid	254		448	
Benzyl chloride	126.58	liquid	-45		179	
Benz(a)anthracene	228.28	solid	157		435	
Beryllium	9.012	solid	1287		2500	
Bioxirane, 2,2'-	86.1	liquid	3.9		142.2	
Bis(2-chloroethoxy) methane	173.1					
Bis(2-chloroethyl) ether	143	liquid	-46.8		178.3	
Bis(2-chloroisopropyl) ether	171.09	liquid			187.8	
Bis(2-ethylhexyl)phthalate	390.56	liquid	-46.1		385	
Bis(chloromethyl)ether	114.97	liquid	-41.5		106	
Bis(dimethylthiocarbamoyl)disulfide	240.44	solid	155			
Bromoform	252.77	liquid	7.5		149.5	
Butanol, 1-	74.12	liquid	-90		117.5	
Butanone peroxide, 2-	88.1	liquid				
Butanone,2-	72.1	liquid	-86		79.6	
Butenal, 2-	70.09	liquid	-74		104.5	
Butyl acetate	116.16	liquid	-77		125.5	
Butyl acetate, iso-	116.16	liquid	-99		118	
Butyl acetate, sec-	116.16	liquid	-58.9		112.5	
Butyl acetate, tert-	116.16	liquid			97.8	
Butyl benzyl phthalate	312.39	liquid	-35		370	
Butylamine	73.14	liquid	-50		78	
Butylamine, sec-	73.14	liquid	-50			
Butylamine, sec-	73.14	liquid	-104.4		63	
Butylamine, tert-	73.14	liquid	-72.65		45	
Butyric acid	88.12	liquid	-4.26		163.53	
Cacodylic acid	137.99	solid	195.5		200	
Cadmium	112.41	solid	321		765	
Calcium carbide	64.1	solid	2300			

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING POINT (C)	BOILING POINT PRESSURE torr
Calcium dodecylbenzene sulfonate		solid				
Calcium hypochlorite	142.99	solid	100			
Captan	300.57	solid	178			
Carbaryl	201.22	solid	109			
Carbofuran	221.28	solid	151.5			
Carbon disulfide	76.14	liquid	-110.8		46.5	
Carbon tetrachloride	153.84	liquid	-23		76.7	
Carbonyl chloride	98.92	gas	-118		8.2	
Chlorambucil	304.23	solid	65			
Chlordane	406	solid	90.5		158.3	
Chlorine	70.9	gas	-101		-34.4	
Chlorine cyanide	61.48	gas	-6		13.8	
Chlornaphazine	268.2	solid	55		210	5
Chloroacetaldehyde	78.5	liquid	-16.1		85.5	
Chloroaniline, p-	127.57	solid	72.5		232	
Chlorobenzene	112.56	liquid	-45		131.5	
Chlorodibromomethane	208.29	liquid			119	
Chloroethane	64.52	gas	-136.4		12.3	
Chloroethyl vinyl ether, 2-	106.55	liquid			107.8	
Chloroform	119.39	liquid	-63.5		61.5	
Chloronaphthalene, 2-	162.61	solid	59.5		256	
Chlorophenol, 2-	128.56	solid	33.5		214	
Chloropropionitrile, 3-	99	liquid	-51.1		175.6	
Chlorosulfonic acid	116.53	liquid	-80		151	755
Chloro-2,3-epoxypropane, 1-	92.53	liquid	-25.6		117.9	
Chlorpyrifos	350.59	solid	41.5			
Chromic acid	100.01	solid	197			
Chromium	51.996	solid	18.57		2642	
Chromous chloride	122.9	solid	824		1300	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING PRESSURE (C)	BOILING POINT PRESSURE torr
Cobaltous bromide	218.77	solid	678			
Cobaltous formate	185	solid				
Cobaltous sulfamate	1153.01	solid				
Copper	63.546	solid	1083		2567	
Copper Cyanides		solid				
Coumaphos	362.78	solid	91			
Creosote	108.13	liquid				
Cresol(s)		solid	80			
Cresol-o	108.13	solid	30		191.5	
Cresol-p	108.13	solid	35.5		201.8	
Cumene	120.19	liquid	-96.1		152.2	
Cupric chloride	134.45	solid				
Cupric sulfate	159.61	solid				
Cyanides-Soluble Salts/Complexes		solid				
Cyanogen	52.04	gas	-27.9		-21.17	
Cyclohexadienedione, 1,4-	108	solid	112.8			
Cyclohexane	84.16	liquid	6.47		80.7	
Cyclohexanone	98.14	liquid	-32.1		155.6	
Cyclophosphamide	261.1	solid	43			
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr
Daunomycin	527.51					
DDE, 4,4'-	318		89			
Diamine	32.05	liquid	2		113.5	
Diaminotoluene	122.19	solid			148.9	8
Diazinon	304.36	liquid			84	
Dibenzo[a,h]anthracene	278.33	solid	266			
Dibenz[a,i]pyrene		solid				
Dibromo-3-chloropropane, 1,2-	236.36	liquid			196	
Dibutyl phthalate	278.34	liquid	-35		340	
Dicamba	221.04	solid	115			
Dichlobenil	172.02	solid	144.5			
Dichlone	227.06	solid	193			
Dichloro diphenyl trichloroethane	354.5	solid	109		185	
Dichlorobenzene (mixed)		liquid				
Dichlorobenzene, m-	147.01	liquid	-24.4		172.8	
Dichlorobenzene, o-	147.01	liquid	-24.8		172	
Dichlorobenzidine, 3,3'-	253.13	solid	132.5			
Dichlorobromomethane	163.83	liquid	-57.2		90	
Dichlorodifluoromethane	129.91	gas	-158		-29.8	
Dichlorodiphenyl dichloroethane	320.05	solid	109.5			
Dichloroethane, 1,1-	98.97	liquid	-97.4		57.3	
Dichloroethane, 1,2-	98.96	liquid	-40		83.5	
Dichloroethylene, 1,1-	96.94	liquid	-122.1		37	
Dichloroethylene-trans, 1,2-		liquid				
Dichlorophenol, 2,4-	163	solid	45		210	
Dichlorophenoxyacetic acid, 2,4-	221	solid				
Dichloropropane	112.99	liquid				
Dichloropropane, 1,1-	112.99	liquid			87	
Dichloropropane, 1,2-	112.99	liquid	-70		95.5	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT	BOILING (C)	BOILING POINT
				PRESSURE torr		PRESSURE torr
Dichloropropane, 1,3-	112.99	liquid	-99.4		120.6	
Dichloropropane-Dichloropropene-MIX		liquid				
Dichloropropene(s)	110.98	liquid	-83.9		103.9	
Dichloropropene, 1,3-	110.98	liquid			108	
Dichloropropene, 2,3-	110.97	liquid			94	
Dichloropropionic acid, 2,2-	142.97	solid	20		185	
Dichlorvos	220.98	liquid			76.7	
Dieldrin	390.93	solid	176.5			
Diethyl phthalate	222.26	liquid	-40		298	
Diethylamine	73.14	liquid	-50		55.5	
Diethylarsine	134.05	liquid			105	
Diethylene dioxide, 1,4-						
Diethylhydrazine, N,N'-	88.18				85.5	
Diethylstilbestrol	268.34	solid	170.5			
Dihydrosafrole	164.22	liquid			227.8	
Dimethoate	229.28	solid	52.5			
Dimethoxybenzidine, 3,3'-	244.28	solid	137.5			
Dimethyl phthalate	194.19	liquid	5.5		283.7	1
Dimethyl sulfate	126.13	liquid	-27		188	
Dimethylamine	45.08	gas	-96		7	
Dimethylaminoazobenzene	225.28	solid	85		96.1	
Dimethylbenzidine, 3,3'-	212.28	solid	130			
Dimethylcarbamoyl chloride	107	liquid	-32.8		167	
Dimethylhydrazine, 1,1-	61.1	liquid	-58		63.9	
Dimethylhydrazine, 1,2-	60.1	liquid	-57.8		81	753
Dinitrobenzene (mixed)	168.11	solid				
Dinitrobenzene, m-	168.11	solid	89.5		291.1	756
Dinitrobenzene, o-	168.11	solid	118		319	
Dinitrobenzene, p-	168.11	solid	174		299	777

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING POINT (C)	BOILING POINT PRESSURE torr

Dinitrophenol, 2,4-	184.11	solid	113			
Dinitrophenol, 2,5-	184.11	solid	108			
Dinitrophenol, 2,6-	184.11	solid	63.5			
Dinitrotoluene	182.1	solid	70		250	
Dinitrotoluene, 2,4-	182.14	solid	71		300	
Dinitrotoluene, 2,6-	182.14	solid	66		250	
Dinitrotoluene, 3,4-	182.14	solid	58.3			
Dinitro-o-cresol, 4,6-	198.13	solid	87.5			
Dinoseb	240.22	solid	40			
Dipropylamine	101.22	liquid	-39.4		109.4	
Diquat		solid				
Disulfoton	274.38	liquid			131.7	
Diuron	233.1	solid	158.5			
Di-n-octyl phthalate	390.62	liquid	-25		220	
Di-n-propylnitrosamine	130.19	liquid			205	
Dodecylbenzenesulfonic acid	326.49	solid				
EDTA	292.24	solid	220		223	
Endosulfan	406.95	solid				
Endrin	380.93	solid	235			
Ethanal	44.05	liquid	-123.5		21	
Ethanenitrile	41.05	liquid	-45		81.6	
Ethanethioamide	75.14	solid	113.5			
Ethanoyl chloride	78.5	liquid	-112		52	
Ethion	384.48	liquid	-12.5			
Ethyl 4,4'-dichlorobenzilate	325.2	solid	18.34		131.1	
Ethyl acetate	88.1	liquid	-83		77	
Ethyl acrylate	100.11	liquid			99.4	
Ethyl carbamate (Urethane)	89.1	solid	49		179	
Ethyl ether	74.12	liquid	-116.3		34.6	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT	BOILING (C)	BOILING POINT PRESSURE
				PRESSURE torr		
Ethyl methacrylate	114.07	liquid			118.9	
Ethyl methanesulfonate	124.15	liquid			213	
Ethylbenzene	106.16	liquid	-95.01		136.25	7.1
Ethylene dibromide	187.88	liquid	9		131.5	
Ethylene oxide	44.05	gas	-111		10.7	
Ethylenediamine	60.1	liquid	8.5		116.5	
Ferric chloride	162.22	solid	306			
Ferric dextran	180000	liquid				
Ferric Nitrate	241.87	solid	47			
Ferrous chloride	126.76	solid	674		1023	
Ferrous sulfate	151.91	solid				
Ferrous sulfate	278.05	solid				
Fluorine	38	gas	-291.61		-188.13	
Fluoroacetamide	77.06	solid				
Fluoroacetic acid sodium salt						
Formaldehyde	30.03	gas	-92		-19.5	
Fumaric Acid	116.07	solid				
Furan	68.08	liquid	-85.6		31.7	
Furancarboxaldehyde, 2-	96.08	liquid	-36.5		161.8	
Furandione, 2,5-	98.06	solid	52.8		198.9	
Glycidylaldehyde	74.08	liquid			167	
Guthion	317.34	solid	73.5			
Heptachlor	373.35	solid	95.5			
Hexachlorobenzene	284.8	solid	231		324.5	
Hexachlorobutadiene	260.76	liquid	-21		215	
Hexachlorocyclopentadiene		solid				
Hexachloroethane	236.74	solid	186.1(sublimes)			
Hydrochloric acid	37	gas	-115		-85	
Hydrocyanic acid	27.03	liquid	-13.4		25.6	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr
Hydrofluoric acid	20.01	liquid	-83.55		19.5	
Hydrogen phosphide	34	gas	-133		-87.7	
Hydrogen sulfide	34.08	gas	-85.49		-60.33	
Imidazolidinethione, 2-	102.17	solid	203.5			
Indeno(1,2,3-cd)pyrene	276.34	solid	162.2			
Isophorone	138.21	liquid	-8.3		215	
Isoprene	68.11	liquid	-145.95		34.067	
Isopropanolamine dodecylbenzene sul		solid				
Isosafrole	162.18	liquid	8.2		253	
iso-butyl alcohol	74.12	liquid	-108		108	
iso-Butylamine	73.14	liquid	-85		68.5	
Kelthane	370.47	solid	77.5			
Kepone	490.68	solid	359			
Lasiocarpine	411.5	solid	95			
Lead	207.19	solid				
Lead sulfate	303.28	solid	1170			
Lindane	290.85	solid	112.5			
Malathion	330.36	liquid	2.9		156.5	0.7
Maleic Acid	116.07	solid	138.5		135	
Melphalan	305.2	solid	182.5			
Mercaptodimethur	225.31	solid	121.5			
Mercury	200.59	liquid	-38.87		356.72	
Methacrylonitrile	67.09	liquid	-35.8		90.3	
Methanethiol	48.11	gas	-123		5.95	
Methanoic acid	46.02	liquid	8.4		100.5	
Methomyl	162.2	solid	78.9			
Methoxychlor	345.65	solid	89			
Methyl alcohol	32.04	liquid	-97.8		64.7	
Methyl Bromide	94.95	gas	-93.66		3.56	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT	BOILING (C)	BOILING POINT
				PRESSURE torr		PRESSURE torr
Methyl chloride	50.49	gas	-97		-23.7	
Methyl chloroform	133.42	liquid	-30.5		73.9	
Methyl hydrazine	46.07	liquid	-52.4		87.5	
Methyl iodide	141.95	liquid	-66.5		42.5	
Methyl isocyanate	57.06	liquid	-45		59.6	
Methyl methacrylate	100	liquid	-47.7		100	
Methyl parathion	263.23	solid	37.5			
Methylaziridine, 2-	57	liquid	-65		66.1	
Methylbutadiene, 1-	68.13	liquid	-87.8		42.2	
Methylene bromide		liquid				
Methylene chloride	84.94	liquid	-95		39.75	
Methylenebis(2-chloroaniline), 4,4'	267.15	solid	110			
Methylthiouracil	142.18	solid				
Methyl-2-pentanone, 4-	100.16	liquid	-83.9		117.5	
Mevinphos	224.16	liquid	-56.1		325	
Mexacarbate	222.29	solid	85			
Mitomycin C	334.37	solid	360			
Monoethylamine	45.08	liquid	-80		16.6	
Monomethylamine	31.06	gas	-93.6		-6.3	
Naled	380.79	solid	27		110	0.5
Naphthalene	128.16	solid	80.2		217.9	
Naphthenic acid	128.2	solid	31.1		236.1	
Naphthylamine, 1-	143.18	solid	50		301	
Naphthylamine, beta-	143.18	solid	112		306	
Naphthylthiourea, alpha-	202.27	solid	198			
Nickel	58.71	solid	1455		2837	
Nickel chloride	129.62	solid	1001.1			
Nickel hydroxide	92.72	solid	decom 230			
Nickel sulfate	154.77	solid				

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING POINT (C)	BOILING POINT PRESSURE torr
Nicotine and salts	162.23	liquid	-79		247	745
Nitric acid	63.02	liquid	-41.67		83	
Nitric oxide	30.01	gas	-163.3		-151.7	
Nitroaniline, p-	138.12	solid	146		332	
Nitrobenzene	123.11	liquid	6		210.5	
Nitrogen dioxide	46.01	liquid	-9.3		21.15	
Nitrogen dioxide	46.01	liquid	-9.3		21.15	
Nitroglycerine	227.09	liquid	11.6		145	
Nitrophenol (mixed)	139.11	solid				
Nitrophenol, m-	139.11	solid	97		194	70
Nitrophenol, o-	139.11	solid	44.5		215	
Nitrophenol, p-	139.11	solid	113.5			
Nitropropane, 2-	89.08	liquid	-93		120.3	
Nitrosodiethanolamine, N-	134.13	liquid			113.9	1.5
Nitrosodiethylamine, N-	102.14	liquid			176	
Nitrosodimethylamine, N-	74.08	liquid			152	
Nitrosodiphenylamine, N-	198.22	solid	144.5			
Nitrosomethylvinylamine, N-	86.11	liquid			47.5	30
Nitrosopiperidine, N-	114.17	solid			108.9	
Nitroso-N-ethylurea, N-	117.13	solid				
Nitroso-N-methylurea, N-	103.08	solid	123			
Nitroso-N-methylurethane, N-	132.14	liquid			63.1	12
Nitrotoluene	137.13	liquid				
Nitrotoluene, m-	137.13	liquid	15.5		231.9	
Nitrotoluene, o-	137.13	liquid	-10		222	
Nitrotoluene, p-	137.13	solid	53.5		238	
N-Nitrosodi-n-butylamine	158.28	liquid			282.8	14
N-Nitrosopyrrolidine	100.11	liquid			213.9	
Octamethyldiphosphoramide	286.26	solid	17			

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING (C)	BOILING POINT PRESSURE torr
Osmium oxide	254.1	solid	39.5			
Paraformaldehyde	90.09	solid				
Parathion	291.27	liquid	6		375	
Pentachloronitrobenzene	295.36	solid	146		328	
Pentachlorophenol	266.35	solid	190.5		309.5	
Phenacetin	179.21	solid	134.5			
Phenanthrene	178.22	solid	100		340	
Phenol	94.11	solid	40.85		182	
Phenylmercuric acetate	336.75	solid	149			
Phorate	260.4	liquid			126	2
Phosphoric acid	98	solid	41.7		260	
Phosphorus	124	solid	43.9		280	
Phosphorus oxychloride	153.35	liquid	2.22		105.6	
Phosphorus sulfide	222.29	solid	288		514	
Phosphorus trichloride	137.35	liquid	-112		76	
Phthalic anhydride	148.11	solid	130.8		295	
Picoline, 2-	93.14	liquid	-18.3		143.9	
Polychlorinated biphenyls (PCB's)						
Potassium bichromate	294.21	solid	398			
Potassium cyanide	65.11	solid	634			
Potassium hydroxide	56.1	solid	360		1321	
Potassium permanganate	158.03	solid				
Pronamide	256.14	solid				
Propane sultone, 1,3-		solid	31.1		112.2	
Propanone, 2-	58.08	liquid	-94		56.5	
Propargite	350.51	liquid				
Propenal, 2-	56.06	liquid	-88		52.5	
Propenenitrile, 2-	53.06	liquid	-88.55		77.3	
Propen-1-ol, 2-	58.08	liquid	-128.9		97.2	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING POINT (C)	BOILING PRESSURE torr

Propionic acid	74.08	liquid	-21.5		141.1	
Propionic anhydride	130.14	liquid	-45		167	
Propylamine, n-	59.13	liquid	-82.8		47.8	
Propylene oxide	58.08	liquid	-112.13		34.23	
Propyn-1-ol, 2-	56.06	liquid	-50		114.5	
Pyrene	202.24	solid	156		404	
Pyrethrins		liquid				
Pyrethrins	328.45	liquid				
Pyridine	79.1	liquid	-42		115.5	
Quinoline	129.15	liquid	-15		237.7	
Resorcinol	110.11	solid	110		280	
Safrole	162.19	liquid	11.2		234.5	
Selenium	78.96	solid	217		684.9	
Silver	107.868	solid	960.5		2212	
Silver cyanide	133.9	solid				
Silver nitrate	169.89	solid	212			
Silvex	269.53	solid	181.6			
Sodium	22.9897	solid	97.82		991.4	
Sodium arsenite	129.91	solid	615			
Sodium azide	65.02	solid				
Sodium bichromate	298	solid	100			
Sodium bisulfite	104.07	solid				
Sodium chromate	161.97	solid				
Sodium cyanide	49.02	solid	563		1496	
Sodium dodecylbenzene sulfonate	348.49	solid				
Sodium fluoride	42	solid	993		1704	
Sodium hydrosulfide	56.06	solid	350			
Sodium hydroxide	40.01	solid	318			
Sodium hypochlorite	74.44	solid	18			

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT	BOILING (C)	BOILING POINT
				PRESSURE torr		PRESSURE torr
Sodium methylate	54.03	solid				
Sodium nitrite	69	solid	271			
Sodium phosphate, dibasic	141.96	solid	34.4			
Sodium phosphate, tribasic	163.94	solid				
Streptozotocin	265.22	solid	115			
Strychnine and salts	334.4	solid	286		270	5
Styrene	104.14	liquid	-30.6		145.5	
Sulfur monochloride	135.03	liquid	-80		135.6	
Sulfuric Acid	98.08	liquid			290	
Sulfuric acid	98.08	liquid	10.6		330	
T amines, 2,4,5-						
T amines, 2,4,5-						
T amines, 2,4,5-						
T amines, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T salts, 2,4,5-						
Tetrachlorodibenzo-p-dioxin, 2,3,7,	321.96	solid	295			
Tetrachloroethane, 1,1,2,2-	167.86	liquid	-44		146.5	
Tetrachloroethylene	165.85	liquid	-22		121	
Tetraethyl lead	323.45	liquid			200	
Tetraethyl pyrophosphate	290.2	liquid				
Tetraethyldithiopyrophosphate	322	liquid				
Tetrahydrofuran	72.1	liquid	-107.8		66	
Tetranitromethane	196.04	liquid	14.2		126	
Thallium	204.83	solid	303.5		1457	

NAME	M.W.	PHASE	MELTING (C)	MELTING POINT PRESSURE torr	BOILING POINT (C)	BOILING PRESSURE torr
Thiourea	76.12	solid	177			
Toluene	92.13	liquid	-95		110.6	
Toluene diisocyanate	174.15	solid	20		251	
Toxaphene	413.79	solid	70-95		dec>120	
TP acid esters, 2,4,5-						
Triazol-3-amine, 1H-1,2,4-	84.08	solid	159			
Trichlorfon	257.45	solid	83.5			
Trichlorobenzene, 1,2,4-	181.46	solid	17		213	
Trichloroethane, 1,1,2-	133.42	liquid	-35		113.5	
Trichloroethylene	131	liquid	-72.8		87.2	
Trichloromonofluoromethane	137.38	liquid	-111		23.7	
Trichlorophenol	197.44	solid				
Trichlorophenol, 2,3,4-	197.44	solid	83.3			
Trichlorophenol, 2,3,5-	197.46	solid	62		248.5	
Trichlorophenol, 2,3,6-	197.45	solid	58		252.8	
Trichlorophenol, 2,4,5-	197.46	solid	67		253	
Trichlorophenol, 2,4,6-	197.46	solid	69		246	
Trichlorophenol, 3,4,5-	197.45	solid	101		271	746
Triethanolamine dodecylbenzene sulf		solid				
Triethylamine	101.19	liquid	-115		89.5	
Trimethylamine	59.11	gas	-124		3.5	747
Tris(2,3-dibromopropyl) phosphate	697.93	liquid				
Trypan Blue	960.83	solid				
T, 2,4,5-	255.49	solid	153			
Uracil Mustard	252.1	solid				
Vanadium (V) oxide	181.9	solid				
Vanadyl sulfate	163	solid				
Vinyl Acetate	86.09	liquid	-100		72.5	
Vinylchloride	62.5	gas	-153.8		-13.37	

NAME	M.W.	PHASE	MELTING POINT (C)	PRESSURE torr	BOILING POINT (C)	PRESSURE torr
Warfarin	308.32	solid	161			
Xylene	106.16	liquid			137	
Xylene, m-	106.16	liquid	-47.8		138.9	
Xylene, o-	106.16	liquid	-25		144	
Xylene, p-	106.16	liquid	13.5		137.5	
Xylenol	122.16	solid				
Zinc	65.38	solid	419.58		907	
Zinc chloride	136.29	solid	290		732	
Zinc cyanide	117.42	solid				
Zinc phosphide	258.09	solid	420		1100	
Zinc sulfate	161.43	solid				
Zirconium potassium fluoride	283.41	solid				
Zirconium tetrachloride	233.05	solid	437			

A.5.3

ALPHABETICAL LISTING
OF
DENSITY, VAPOR DENSITY, % LEL, AND VAPOR PRESSURE

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Acenaphthene	1.189			10	131	A
Acetic Acid	1.053		4.0	10	17.5	B
Acetic anhydride	1.08	3.5	2.9	4	20	A
Acetone cyanohydrin	0.982	2.9	2.2	1.4	20	A
Acetophenone	1.0281	4.1	FLA	1	20	A
Acetyl bromide	1.52			H		*
Acetylaminofluorene, 2-						
Acrylamide	1.122	2.46		2	87	C
Acrylic acid	1.0621	2.5	2.4	4	20	A
Aldicarb	1.195			0.0001	20	A
Aldrin	1.65		DEC	0.000006	20	A
Allyl chloride	0.938	2.6	2.9	295	20	A
Aluminum phosphide	2.85		FLA			
Aluminum sulfate	2.71			23.8	0	A
Aminopyridine, 4-						
Ammonia	0.5967	0.6	15	6612	20	C
Ammonium acetate	1.17					
Ammonium bifluoride	1.5		FLA			
Ammonium bisulfite	2.03					
Ammonium carbamate				0	20	A
Ammonium chloride	1.527		INC			
Ammonium fluoborate	1.971					
Ammonium fluoride	1.015		INC			
Ammonium hydroxide	0.9	0.6	16	H		*
Ammonium oxalate	1.5					
Ammonium silicofluoride	2.011					
Ammonium sulfamate			INF	0	20	A
Ammonium sulfide	1.17					
Ammonium sulfite	1.41					
Ammonium thiocyanate	1.3057		INF	0	20	A

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Ammonium thiosulfate	1.679			0	20	A
Ammonium vanadate	2.326		INF			
Amyl acetate	0.8756	4.5	1.1	4	20	A
Amyl acetate, iso-	0.876	4.49		6	25	C
Amyl acetate, sec-	0.861	4.5	1	7	20	A
Amyl acetate, tert-	0.8712	4.5		L		*
Anthracene	1.25	6.15	.6	1	20	A
Antimony	6.68		COM	1	20	A
Antimony trichloride	3.14					
Antimony trioxide						
Arsenic	5.727					
Arsenic acid						
Arsenic (V) oxide	4.32		INC	0	20	A
Asbestos	2.5		INF	0	20	A
Auramine						
Azaserine						
Aziridine	0.8321	1.5	3.6	160	20	A
Benzenamine	1.022	3.22	1.3	0.3	20	C
Benzene	0.8787	2.8	1.3	75	20	A
Benzenthioi	1.0728		FLA	1	20	A
Benzidine		6.36				
Benzoic Acid	1.321	4.21				
Benzonitrile	1.01	3.6	1.4	1	20	A
Benzopyrene, 3,4-			INC	1	20	A
Benzoyl chloride	1.207	4.88	COM	0.4	20	C
Benzo(b)fluoranthene			COM	0.000001(MAX)		D
Benzo(j,k)fluorene	1.252		COM	0.01	20	A
Benzo[ghi]perylene				0.000000001		*
Benzo[phenanthrene, 1,2-	1.274		INC	0	20	A
Benzyl chloride	1.1		1.1	1	22	B

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF

Benz(a)anthracene						
Beryllium	1.85					
Bioxirane, 2,2'-	1.113			L		A
Bis(2-chloroethoxy) methane				<0.01	20	D
Bis(2-chloroethyl) ether	1.222	4.9	COM	0.4	20	A
Bis(2-chloroisopropyl) ether	1.11	2.7	COM	523	25	C
Bis(2-ethylhexyl)phthalate	0.9861	13.5	0.28	1.2	200	A
Bis(chloromethyl)ether	1.315	3.97		30	22	D
Bis(dimethylthiocarbamoyl)disulfide	1.29			0	20	A
Bromoform	2.9035	8.7		5.6	25	C
Butanol, 1-	0.81	2.55	1.4	4.4	20	C
Butanone peroxide, 2-			FLA	H		*
Butanone, 2-	0.805	2.41		77.5	20	C
Butenal, 2-	0.8496	2.4	2.1	30	20	A
Butyl acetate	0.8826	4.0	1.7	10	20	C
Butyl acetate, iso-	0.871		FLA	M		*
Butyl acetate, sec-	0.865	4.0	1.7	10	20	A
Butyl acetate, tert-	0.8665		FLA	M		*
Butyl benzyl phthalate	1.116		COM			
Butylamine	0.7327	2.5	1.7	82	20	A
Butylamine, sec-	0.724		1.7	H		*
Butylamine, sec-	0.724	2.52	1.7	70	20	A
Butylamine, tert-	0.6951	2.5		100	8.9	A
Butyric acid	0.9577		2.0	1	25	B
Cacodylic acid						
Cadmium	8.642		COM	0	20	A
Calcium carbide	2.22		EXPL	0	20	A
Calcium dodecylbenzene sulfonate						
Calcium hypochlorite	2.35					
Captan	1.74					

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Carbaryl	1.232		NA	0.005	20	A
Carbofuran	1.18					
Carbon disulfide	1.2632	2.6	1.3	300	20	A
Carbon tetrachloride	1.589	5.3	INC	91	20	A
Carbonyl chloride	1.432		inc			
Chlorambucil			NFLA			
Chlordane	1.59		NA	0.00001	20	A
Chlorine	3.214	2.5	inc	6.8	21	A
Chlorine cyanide	1.186	2	FLA	1778	21	A
Chlornaphazine						
Chloroacetaldehyde	1.19			100	20	A
Chloroaniline, p-	1.169	4.4	COM	1	59	A
Chlorobenzene	1.1058	3.9	1.3	8.8	20	A
Chlorodibromomethane	2.451		FLA	H		*
Chloroethane	0.9214		3.8	1000	20	D
Chloroethyl vinyl ether, 2-	1.0475	3.7		26.75	20	D
Chloroform	1.484	4.12	INC	160	20	C
Chloronaphthalene, 2-	1.377	5.6	COM	0.17	20	D
Chlorophenol, 2-	1.265	4.4	COM	1	12	A
Chloropropionitrile, 3-		3		6	50	A
Chlorosulfonic acid	1.753			L		*
Chloro-2,3-epoxypropane, 1-	1.1761	3.2	3.8	13	20	A
Chlorpyrifos						
Chromic acid	2.7					
Chromium	7.14					
Chromous chloride	2.878					
Cobaltous bromide	4.909					
Cobaltous formate	2.13					
Cobaltous sulfamate						
Copper	8.92		ONF	1	20	A

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF

Copper Cyanides						
Coumaphos	1.47		FLA	0.0000001	20	A
Creosote	1.034		COM			
Cresol(s)						
Cresol-o	1.047	3.7	1.4	1	20	A
Cresol-p	1.0178	3.72	1.1	1	36	A
Cumene	0.862	4.1	0.9	3.2	20	A
Cupric chloride	3.39					
Cupric sulfate	3.6					
Cyanides-Soluble Salts/Complexes						
Cyanogen			6.6			
Cyclohexadienedione, 1,4-	1.307	3.7		0.1	20	A
Cyclohexane	0.7781		FLA	77	20	C
Cyclohexanone	0.9478	3.38		4	20	C
Cyclophosphamide						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
D Esters, 2,4-						
Daunomycin						
DDE, 4,4'-						
Diamine	1.011	1.1	4.7	14.4	20	A
Diaminotoluene			COM	1	20	A
Diazinon	1.117			0.00014	20	A

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Dibenzo[a,h]anthracene	1.282		888			
Dibenz[a,i]pyrene						
Dibromo-3-chloropropane, 1,2-	2.05	8.2	COM	0.8	20	A
Dibutyl phthalate	1.0459			0.1	115	C
Dicamba				0.003	20	A
Dichlobenil	1.33			0.000003	20	A
Dichlone						
Dichloro diphenyl trichloroethane	1.56			0.00000017	20	A
Dichlorobenzene (mixed) .				L		*
Dichlorobenzene, m-	1.2884	1.29		1	12	A
Dichlorobenzene, o-	1.3059		2.2	1.5	20	D
Dichlorobenzidine, 3,3'-						
Dichlorobromomethane	1.98			H		*
Dichlorodifluoromethane	1.183	4.2	INC	4393	21	A
Dichlorodiphenyl dichloroethane	1.476		COM			
Dichloroethane, 1,1-	1.1757	3.42	5.6	180	20	C
Dichloroethane, 1,2-	1.2569		6.2	61	20	C
Dichloroethylene, 1,1-	1.2129	3.25	6.5	591	20	C
Dichloroethylene-trans, 1,2-				H		*
Dichlorophenol, 2,4-				0.12	20	D
Dichlorophenoxyacetic acid, 2,4-				7.63	20	A
Dichloropropane		3.9		M		*
Dichloropropane, 1,1-	1.143	3.9	3.1	M		*
Dichloropropane, 1,2-	1.159	3.9	3.4	40	20	A
Dichloropropane, 1,3-	1.1876	3.9		M		*
Dichloropropane-Dichloropropene-MIX				M		*
Dichloropropene(s)	1.22	3.8	5.3	28	25	A
Dichloropropene, 1,3-	1.22	3.8	5.3	28	20	A
Dichloropropene, 2,3-	1.211	3.8	2.6	53	25	A
Dichloropropionic acid, 2,2-	1.4014		NF	10	40	A

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Dichlorvos	1.415		NA	0.032	20	A
Dieldrin		13.3				
Diethyl phthalate	1.1175	7.7		14	163	A
Diethylamine	0.7074		1.8	H		*
Diethylarsine	1.1338			H		*
Diethylene dioxide, 1,4-						
Diethylhydrazine, N,N'-	0.797					
Diethylstilbestrol			NA	0	20	A
Dihydrosafrole	1.0695					
Dimethoate	1.277		FLA			
Dimethoxybenzidine, 3,3'-						
Dimethyl phthalate	1.194	6.69				
Dimethyl sulfate	1.3322	4.4	COM	L		*
Dimethylamine	0.6865	1.6	2.8	1345	21	A
Dimethylaminoazobenzene			NA	1900	20	A
Dimethylbenzidine, 3,3'-						
Dimethylcarbamoyl chloride				30	20	A-E
Dimethylhydrazine, 1,1-	0.791	2	2	103	20	A
Dimethylhydrazine, 1,2-	0.8274	2.1	2	106	20	A
Dinitrobenzene (mixed)		3.8				
Dinitrobenzene, m-	1.5759					
Dinitrobenzene, o-	1.57	5.79				
Dinitrobenzene, p-	1.625					
Dinitrophenol, 2,4-	1.683					
Dinitrophenol, 2,5-		6.4				
Dinitrophenol, 2,6-			EXP	0	20	A
Dinitrotoluene						
Dinitrotoluene, 2,4-	1.3208	6.3	EXP	1	20	A
Dinitrotoluene, 2,6-	1.2833		EXP	1	20	A
Dinitrotoluene, 3,4-	1.2594					

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Dinitro-o-cresol, 4,6-			EXP	0.00005	20	A
Dinoseb						
Dipropylamine	0.74	3.5	FLA	H		*
Diquat						
Disulfoton	1.144			1.8	20	A
Diuron				0.0000002	13	A
Di-n-octyl phthalate	0.978		COM	L		*
Di-n-propylnitrosamine	0.916					
Dodecylbenzenesulfonic acid			FLA			
EDTA	0.86		INC			
Endosulfan						
Endrin			INC	0.0000002	20	A
Ethanal	0.788	1.5	4	750	20	A
Ethanenitrile	0.78745	1.4	3	73	20	A
Ethanethioamide						
Ethanoyl chloride	1.104		FLA			
Ethion	1.22		INF			
Ethyl 4,4'-dichlorobenzilate	1.2816					
Ethyl acetate	0.902	3.04	2.0	72.8	20	C
Ethyl acrylate	0.9405	3.5	1.4	29.5	20	A
Ethyl carbamate (Urethane)	0.9862		NEX	10	20	A
Ethyl ether	0.7134	2.6	1.8	442	20	A
Ethyl methacrylate	0.911	3.9	1.8	14	20	A
Ethyl methanesulfonate	1.1452					
Ethylbenzene	0.866	3.66	1.0	7	20	C
Ethylene dibromide	2.172	6.5	INF	11	20	C
Ethylene oxide	0.8694		3.0	1140	21	A
Ethylenediamine	0.898	2.1	4.2	10	20	A
Ferric chloride	2.9		INF	1	194	A
Ferric dextran						

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Ferric Nitrate	1.68		INF			
Ferrous chloride	3.16			10	700	A
Ferrous sulfate	1.897					
Ferrous sulfate	1.897					
Fluorine	1.108		INC			
Fluoroacetamide						
Fluoroacetic acid sodium salt						
Formaldehyde	1.067		7.0			
Fumaric Acid	1.625					
Furan	0.9514	2.3	2.3	H		*
Furancarboxaldehyde, 2-	1.1563	3.31	2.1	1	20	C
Furandione, 2,5-	1.48	3.4	1.4	0.16	20	A
Glycidylaldehyde	1.1143					
Guthion	1.44					
Heptachlor	1.57			0.0003		
Hexachlorobenzene	2.044	9.8	COM	1	20	A
Hexachlorobutadiene	1.5542	8.99	INC	22	20	A
Hexachlorocyclopentadiene						
Hexachloroethane	2.09	8.2		0.22	20	A
Hydrochloric acid	1.268	1.3	INC	42.7	43	A
Hydrocyanic acid	0.687	0.95	5.6	1566	46	A
Hydrofluoric acid	1.27		INC			
Hydrogen phosphide		1.17	1	31388	20	A
Hydrogen sulfide			4.0	1520	25	C
Imidazolidinethione, 2-						
Indeno(1,2,3-cd)pyrene			COM	1.0000E-10	20	D
Isophorone	0.9229	4.7	0.8	0.2	20	A
Isoprene	0.681		1.5	493	20	C
Isopropanolamine dodecylbenzene sul						
Isosafrole	1.1206					

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
iso-butyl alcohol	0.806	2.55		10	25	C
iso-Butylamine	0.724	2.5	3.4	100	20	A
Kelthane			FLA			
Kepone						
Lasiocarpine				1		A-L
Lead	11.34			0	20	A
Lead sulfate	6.2					
Lindane				0.001	20	A
Malathion	1.23			L		*
Maleic Acid	1.59					
Melphalan						
Mercaptodimethur			INF	0	20	A
Mercury	13.534			0.0012	20	A
Methacrylonitrile	0.8001		2	40	20	A
Methanethiol	0.8665	1.7	3.9			
Methanoic acid	1.22		18	33	20	C
Methomyl			FLA			
Methoxychlor						
Methyl alcohol	0.7915		6.0	100	21.2	B
Methyl Bromide	1.73	3.3	13.5	1429	21	A
Methyl chloride	0.9159	1.8	8.1	3800	20	A
Methyl chloroform	1.3376	4.6	8	100	20	A
Methyl hydrazine	0.874	1.6	2.5	49.6	25	A
Methyl iodide	2.28	4.9		375	20	A
Methyl isocyanate	0.9599	1.97	5.3	348	20	A
Methyl methacrylate	0.944	3.6	1.7	35	20	A
Methyl parathion	1.358					
Methylaziridine, 2-	0.8039					
Methylbutadiene, 1-	0.676	2.35	2	400	24	B
Methylene bromide				40	23.3	B

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Methylene chloride	1.3255		14	362.4	20	D
Methylenebis(2-chloroaniline), 4,4'-						
Methylthiouracil						
Methyl-2-pentanone, 4-	0.8042	3.5	1.2	15	20	A
Mevinphos	1.25		COM	0.003	20	A
Mexacarbate						
Mitomycin C						
Monoethylamine	0.689			760	16.6	B
Monomethylamine	0.6628	1.1	4.9	2250	20	A
Naled	1.96					
Naphthalene	1.162					
Naphthenic acid	1.034		1			
Naphthylamine, 1-	1.13	4.93				
Naphthylamine, beta-	1.061		COM	1	20	A
Naphthylthiourea, alpha-		6.99				
Nickel	8.9			0	20	A
Nickel chloride	3.55			0	20	A
Nickel hydroxide	4.15					
Nickel sulfate	3.68			0	20	A
Nicotine and salts	1.0097	5.6	0.7	0.0425	20	A
Nitric acid	1.5027	2.2	INC	62	25	A
Nitric oxide	1.3402			26000	20	A
Nitroaniline, p-		4.77		0.0015	20	C
Nitrobenzene	1.2037	4.3	1.8	0.15	20	C
Nitrogen dioxide	1.448		INC			
Nitrogen dioxide	1.448		INC			
Nitroglycerine	1.6009	7.8	EXP	0.0015	20	A
Nitrophenol (mixed)						
Nitrophenol, m-	1.485		COM	70	20	A
Nitrophenol, o-	1.495			1	49.3	D

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Nitrophenol, p-	1.479		COM	1	20	A
Nitropropane, 2-	0.9821	3.1	1.6	12.9	20	A
Nitrosodiethanolamine, N-						
Nitrosodiethylamine, N-	0.9422					
Nitrosodimethylamine, N-	1.0048		COM			
Nitrosodiphenylamine, N-						
Nitrosomethylvinylamine, N-						
Nitrosopiperidine, N-	1.0631					
Nitroso-N-ethylurea, N-						
Nitroso-N-methylurea, N-						
Nitroso-N-methylurethane, N-	1.133					
Nitrotoluene			COM	L		*
Nitrotoluene, m-	1.1581	4.73	1.6	0.15	20	A
Nitrotoluene, o-	1.1622			0.1	20	C
Nitrotoluene, p-	1.286	4.73	1.6	0.1	20	C
N-Nitrosodi-n-butylamine	0.9009					
N-Nitrosopyrrolidine						
Octamethyldiphosphoramidate	1.09					
Osmium oxide	4.906					
Paraformaldehyde	1.46		7	1	30	A
Parathion	1.26	3.81	INC	0.004	20	A
Pentachloronitrobenzene	1.718	10.2				
Pentachlorophenol	1.978	9.2		0.00011	20	C
Phenacetin						
Phenanthrene	1.025					
Phenol	1.071	3.24		0.5293	20	D
Phenylmercuric acetate			NF	0.000009	20	A
Phorate	1.156					
Phosphoric acid	1.834		INC	0.03	20	A
Phosphorus	1.82	4.4	FLA	0.026	20	A

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Phosphorus oxychloride	1.645	5.3	INC	28	20	A
Phosphorus sulfide	2.09					
Phosphorus trichloride	1.574		INF	H		*
Phthalic anhydride	1.53	5.10		0.002	20	C
Picoline, 2-	0.9566	3.2	COM	10	24	A
Polychlorinated biphenyls (PCB's)						
Potassium bichromate	2.676					
Potassium cyanide	1.52		NFLA	0	20	A
Potassium hydroxide	2.044		INF	1	55	A
Potassium permanganate	2.7					
Pronamide				0.000085	25	A
Propane sultone, 1,3-						
Propanone, 2-	0.788	2.0	2.2	26	25	A
Propargite						
Propenal, 2-	0.8389	1.9	2.8	220	20	D
Propenenitrile, 2-	0.806	1.8	3	83	20	A
Propen-1-ol, 2-	0.854	2.0	2.5	17	20	A
Propionic acid	0.993	2.5	2.9	10	39	A
Propionic anhydride	1.0125		COM			
Propylamine, n-	0.7173	2.0	2.0	1	48	A
Propylene oxide	0.8304	2	2.8	442	20	A
Propyn-1-ol, 2-	0.9715	1.93	FLA	11.6	20	A
Pyrene	1.271					
Pyrethrins						
Pyrethrins						
Pyridine	0.9819	2.7	1.8	18	20	A
Quinoline	1.09	4.5	1.2	1	59	A
Resorcinol	1.272	3.79		5	138	C
Safrole	1.1		FLA	1	20	A
Selenium	4.79					

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF
Silver	10.49					
Silver cyanide	3.95		INF			
Silver nitrate	4.35					
Silvex			COM			
Sodium	0.968					
Sodium arsenite	1.87					
Sodium azide	1.846		COM			
Sodium bichromate	2.52					
Sodium bisulfite	1.48		INC			
Sodium chromate						
Sodium cyanide			NFLA	0	20	A
Sodium dodecylbenzene sulfonate						
Sodium fluoride	2.78					
Sodium hydrosulfide	1.79					
Sodium hydroxide	2.13					
Sodium hypochlorite						
Sodium methyate						
Sodium nitrite	2.17					
Sodium phosphate, dibasic	1.5		INF			
Sodium phosphate, tribasic	1.6					
Streptozotocin						
Strychnine and salts	1.36	11.5	NA	0	20	A
Styrene	0.9059	3.6	1.1	4.5	20	A
Sulfur monochloride	1.678		COM	L		*
Sulfuric Acid	1.84		INF	L		*
Sulfuric acid	1.84	3.4	INF	0.001	20	A
T amines, 2,4,5-						
T amines, 2,4,5-						
T amines, 2,4,5-						
T amines, 2,4,5-						

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF

T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T esters, 2,4,5-						
T salts, 2,4,5-						
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-				0.00000017	25	A
Tetrachloroethane, 1,1,2,2-	1.5866	5.79		5	20	C
Tetrachloroethylene	1.623	5.8	INC	15.8	20	A
Tetraethyl lead	1.653		1.8	L		*
Tetraethyl pyrophosphate	1.185					
Tetraethyldithiopyrophosphate			INC			
Tetrahydrofuran	0.8892	2.5	1.8	145	20	A
Tetranitromethane	1.638		INC	9.2	20	A
Thallium	11.85					
Thiourea	1.405		NF			
Toluene	0.8669	3.2	1.3	22	20	A
Toluene diisocyanate	1.2244	6	0.9	0.04	20	A
Toxaphene				0.3	25	
TP acid esters, 2,4,5-						
Triazol-3-amine, 1H-1,2,4-			INC			
Trichlorfon	1.73			0.0000078	20	A
Trichlorobenzene, 1,2,4-	1.4634	6.3	EXP	1	38	
Trichloroethane, 1,1,2-	1.4416	4.6	6	19	20	A
Trichloroethylene	1.4642	4.5	12.5	58	20	A
Trichloromonofluoromethane	1.494			0.904	20	C
Trichlorophenol						
Trichlorophenol, 2,3,4-						
Trichlorophenol, 2,3,5-						
Trichlorophenol, 2,3,6-						

NAME	DENSITY (gm/cc)	VAPDENS (gm/cc)	%LEL COM	VAPOR PRESSURE torr	TEMP. (C)	REF

Trichlorophenol, 2,4,5-						
Trichlorophenol, 2,4,6-	1.4901			1	76.5	D
Trichlorophenol, 3,4,5-						
Triethanolamine dodecylbenzene sulf						
Triethylamine	0.7255		1.2	H		*
Trimethylamine	0.6709	2	2	1444	21	A
Tris(2,3-dibromopropyl) phosphate						
Trypan Blue						
T, 2,4,5-	1.8					
Uracil Mustard						
Vanadium (V) oxide						
Vanadyl sulfate	3					
Vinyl Acetate	0.932	2.97	2.6	83	20	C
Vinylchloride	0.9106		3.6	2660	25	
Warfarin						
Xylene	0.86		1.1	M		*
Xylene, m-	0.8684	3.7	1.1	9	20	A
Xylene, o-	0.8801		1.1	M		*
Xylene, p-	0.86104		1.1	M		*
Xylenol	1.025		1.4	L		*
Zinc	7.14			L		*
Zinc chloride	2.907			1	428	A
Zinc cyanide	1.852		INF			
Zinc phosphide	4.55					
Zinc sulfate	3.54					
Zirconium potassium fluoride	3.48					
Zirconium tetrachloride	2.803					

A.5.4

ALPHABETICAL LISTING
OF
SOLUBILITY IN WATER AND OCTANOL/WATER
PARTITIONING COEFFICIENT

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Acenaphthene	mis				
Acetic Acid	120000	20	A		
Acetic anhydride	freely s		E		
Acetone cyanohydrin	ss	20	A		
Acetophenone	dec		E	1.58	A
Acetyl bromide	ins		B		
Acetylaminofluorene, 2-	2050000		C		
Acrylamide	mis		E		
Acrylic acid	s		E	0.31-0.43	A-CALC
Aldicarb	0.027	20	A		
Aldrin	4000	20	A		
Allyl chloride	ins	20	A		
Aluminum phosphide	s	20	A		
Aluminum sulfate	s	20	E		
Aminopyridine, 4-	531000	20	C		
Ammonia	1480000	3.9	A		
Ammonium acetate	583000	20	A		
Ammonium bifluoride	26700	10	E		
Ammonium bisulfite	sol	20	A		
Ammonium carbamate	2970	0	E		
Ammonium chloride	2500	0	E		
Ammonium fluoborate	10000		E		
Ammonium fluoride	sol	20	A		
Ammonium hydroxide	50000		E		
Ammonium oxalate	freely s	19	E		
Ammonium silicofluoride	1666000	10	A		
Ammonium sulfamate	11280	0	E		
Ammonium sulfide	3240	0	E		
Ammonium sulfite	1280000	20	A		
Ammonium thiocyanate	s	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Ammonium thiosulfate	5200	15	A		
Ammonium vanadate	2000	20	A		
Amyl acetate	1600	25	C		
Amyl acetate, iso-	2000	20	A		
Amyl acetate, sec-	ins		A		
Amyl acetate, tert-	ins		E		
Anthracene	ins	20	A	4.45	A
Antimony	9900		E		
Antimony trichloride	ss		E		
Antimony trioxide	ins		E		
Arsenic	freely s		E		
Arsenic acid	sol	20	A		
Arsenic (V) oxide	ins	20	A		
Asbestos	ins		E		
Auramine	vs		E		
Azaserine	mis		E		
Aziridine	34000		C		
Benzenamine	820	20	A		
Benzene	ins		E	2.13	D
Benzenthioi	400	12	C	2.52	A
Benzidine	2900		C	1.81	
Benzoic Acid	10000	20	A		
Benzonitrile	prac ins		E	1.56	A
Benzopyrene, 3,4-	dec		E	6.04	D
Benzoyl chloride	ins		A		
Benzo(b)fluoranthene	ins		A	6.57	D
Benzo(j,k)fluorene	0.00026	25	D		
Benzo[ghi]perylene	0.002	25	D	7.23	D
Benzo(phenanthrene, 1,2-	ins		E	5.61	D
Benzyl chloride	ins		E		

NAME	SOLUBILITY DATA		OCTANOL/WATER COEFFICIENT		
	SOLUBILITY (mg/lit)	TEMPERATURE (C)	REF.	KOW	RKOW
Benz(a)anthracene	ins	20	A		
Beryllium	sol	20	A		
Bioxirane, 2,2'-	81000	25	D		
Bis(2-chloroethoxy) methane	110000	20	A	1.26	D
Bis(2-chloroethyl) ether	3100	20	C	1.58	D
Bis(2-chloroisopropyl) ether	0.285	24	A		
Bis(2-ethylhexyl)phthalate	22000	25	D		
Bis(chloromethyl)ether	ins		E	-0.38	D
Bis(dimethylthiocarbamoyl)disulfide	3190	30	C		
Bromoform	77000		C		
Butanol, 1-	ins	20	A		
Butanone peroxide, 2-	353000	10	C		
Butanone, 2-	155000	20	A		
Butenal, 2-	14000	20	C		
Butyl acetate					
Butyl acetate, iso-	7400	20	A		
Butyl acetate, sec-	prac ins		E		
Butyl acetate, tert-	2.9		D		
Butyl benzyl phthalate	sol	20	A	4.78	
Butylamine	mis		E	0.68-.88	A
Butylamine, sec-	sol	20	A		
Butylamine, sec-	sol		E		
Butylamine, tert-	mis		E		
Butyric acid	s		E		
Cacodylic acid	ins	20	A		
Cadmium	s		E		
Calcium carbide					
Calcium dodecylbenzene sulfonate	s	20	A		
Calcium hypochlorite	prac ins		E		
Captan	40	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Carbaryl	700	25	A		
Carbofuran	2000	20	A		
Carbon disulfide	800	20	A	1.84-2.16	A-CALC
Carbon tetrachloride	ss		E	2.64	A
Carbonyl chloride	ss	99	A		
Chlorambucil	ins		E		
Chlordane	7000	20	A	2.78	D
Chlorine	s		E		
Chlorine cyanide	ss		E	0.64	A-CALC
Chlornaphazine	mis	20	A		
Chloroacetaldehyde	s		E		
Chloroaniline, p-	1000	20	A	1.83	A
Chlorobenzene	ins		E	2.84	A
Chlorodibromomethane	5740	20	E		
Chloroethane	ins	20	A	1.54	D
Chloroethyl vinyl ether, 2-	8000	20	C	1.28	D
Chloroform	ins	20	A	1.97	D
Chloronaphthalene, 2-	28	20	A	4.12	D
Chlorophenol, 2-	sol		A	2.17	A
Chloropropionitrile, 3-	dec		E		
Chlorosulfonic acid	64800	20	A		
Chloro-2,3-epoxypropane, 1-	s		E		
Chlorpyrifos	vs		E	5.11	A
Chromic acid	ins		E		
Chromium	s	20	A		
Chromous chloride	667000	58.9	A		
Cobaltous bromide	50300	20	A		
Cobaltous formate	sol	20	A		
Cobaltous sulfamate	ins	20	A		
Copper					

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Copper Cyanides	prac ins		E		
Coumaphos	s		E		
Creosote					
Cresol(s)	ins	20	A		
Cresol-o	ins	20	A		
Cresol-p	50	20	A	1.92-.94	A
Cumene	s		E	3.51	A
Cupric chloride	143000	0	A		
Cupric sulfate					
Cyanides-Soluble Salts/Complexes	3815		E		
Cyanogen	150000	20	A		
Cyclohexadienedione, 1,4-	55	20	C	0.20	A
Cyclohexane	23	20	C		
Cyclohexanone	40000		E		
Cyclophosphamide					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
D Esters, 2,4-					
Daunomycin	0.04	20	D		
DDE, 4,4'-	mis		E	5.78	D
Diamine	sol	20	A	-1.37/-.6	A-CALC
Diaminotoluene	40	20	A		
Diazinon	0.0005	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW

Diben zo[a,h]anthracene					
Diben z[a,i]pyrene	1000	20	A		
Dibromo-3-chloropropane, 1,2-	4500	25	C		
Dibutyl phthalate	ss		E	5.2	D
Dicamba	s		E		
Dichlobenil	0.1	25	A		
Dichlone	0.1	20	A		
Dichloro diphenyl trichloroethane				6.19	A
Dichloroben zene (mixed)	sol	20	A		
Dichloroben zene, m-	123	25	C	3.38	D
Dichloroben zene, o-	4	22	D	3.38	D
Dichloroben zidine, 3,3'-	ins		E	3.02	D
Dichlorobromomethane	8	20	A		
Dichlorodifluoromethane	ins		A	2.16	D
Dichlorodiphenyl dichloroethane	5500	20	C		
Dichloroethane, 1,1-	8690	20	C		
Dichloroethane, 1,2-	400	20	D	1.48	D
Dichloroethylene, 1,1-				1.48	D
Dichloroethylene-trans, 1,2-	4500	20	D		
Dichlorophenol, 2,4-				2.75	D
Dichlorophenoxyacetic acid, 2,4-	ins	20	A	2.81	A
Dichloropropane	vss		E		
Dichloropropane, 1,1-	26000	20	A		
Dichloropropane, 1,2-	ins		A	2.28	D
Dichloropropane, 1,3-					
Dichloropropane-Dichloropropene-MIXins		20	A		
Dichloropropene(s)	ins		E		
Dichloropropene, 1,3-	2150	20	A	1.98	D
Dichloropropene, 2,3-	450000	20	A		
Dichloropropionic acid, 2,2-	10000	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Dichlorvos	prac ins		E		
Dieldrin	ins		E		
Diethyl phthalate	mis		E	3.22	D
Diethylamine	ins		A		
Diethylarsine					
Diethylene dioxide, 1,4-	sol	20	A		
Diethylhydrazine, N,N'-	prac ins		E		
Diethylstilbestrol	ins	20	A		
Dihydrosafrole	vss		E		
Dimethoate	prac ins		E	2.71	A
Dimethoxybenzidine, 3,3'-	5000	20	C		
Dimethyl phthalate	28000		E	2.12	D
Dimethyl sulfate	vs		E		
Dimethylamine	ins	25	E	-.38/-.02	A-CALC
Dimethylaminoazobenzene	ss		E	4.58	A
Dimethylbenzidine, 3,3'-	ins	25	E	1.29-1.32	A
Dimethylcarbamoyl chloride	mis		E		
Dimethylhydrazine, 1,1-	mis		E		
Dimethylhydrazine, 1,2-	ss	20	A		
Dinitrobenzene (mixed)	469	15	C		
Dinitrobenzene, m-	100		C		
Dinitrobenzene, o-	100	20	A		
Dinitrobenzene, p-	s		E	1.46-.49	A
Dinitrophenol, 2,4-	ss	20	A		
Dinitrophenol, 2,5-	ss		E	1.75	A
Dinitrophenol, 2,6-	ss	20	A		
Dinitrotoluene	300	20	A		
Dinitrotoluene, 2,4-	300	20	A	2.01	D
Dinitrotoluene, 2,6-	ins		E	2.01	D
Dinitrotoluene, 3,4-	100	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Dinitro-o-cresol, 4,6-	ss	20	A	2.85	D
Dinoseb	sol		A		
Dipropylamine				1.73	
Diquat	ins		E		
Disulfoton	s	20	A		
Diuron	ins	20	A		
Di-n-octyl phthalate	10000	20	A	9.2	D
Di-n-propylnitrosamine	sol	20	A	2.31	D
Dodecylbenzenesulfonic acid	500	25	E		
EDTA	prac ins		E		
Endosulfan	0.16	20	A		
Endrin	1000000		A	5.6	A-CALC
Ethanal	1000000		E	0.43	A-CALC
Ethanenitrile	163000	25	E	-0.34	A
Ethanethioamide	dec		E		
Ethanoyl chloride	ss		E		
Ethion	ss		A		
Ethyl 4,4'-dichlorobenzilate	79000	20	C		
Ethyl acetate	15000	20	A		
Ethyl acrylate	2000000	20	A		
Ethyl carbamate (Urethane)	75000	20	A		
Ethyl ether	50000	20	A	0.83	A
Ethyl methacrylate					
Ethyl methanesulfonate	152		C		
Ethylbenzene	4310	30	C	3.15	D
Ethylene dibromide	s		E		
Ethylene oxide	freely s		E		
Ethylenediamine	7440	0	A		
Ferric chloride	sol	20	A		
Ferric dextran	sol	20	A		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Ferric Nitrate	644000	10	A		
Ferrous chloride	s		E		
Ferrous sulfate	156500	20	A		
Ferrous sulfate					
Fluorine	freely s		E		
Fluoroacetamide					
Fluoroacetic acid sodium salt	vs		E		
Formaldehyde	7000	25	C		
Fumaric Acid	ins	20	A		
Furan	83000	20	C		
Furancarboxaldehyde, 2-	ins/rcts	20	A		
Furandione, 2,5-	mis		E		
Glycidylaldehyde	33		E		
Guthion	ins		E		
Heptachlor	ins		E		
Hexachlorobenzene	2	20	D	6.18	D
Hexachlorobutadiene				3.74	D
Hexachlorocyclopentadiene	50	20	A		
Hexachloroethane	823000	0	A	3.34	D
Hydrochloric acid	mis		E		
Hydrocyanic acid	mis		B		
Hydrofluoric acid	4	20	A		
Hydrogen phosphide	4132	20	E		
Hydrogen sulfide	20000		E		
Imidazolidinethione, 2-	ins		A		
Indeno(1,2,3-cd)pyrene	12000	20	A	7.66	D
Isophorone	prac ins		E	1.7	D
Isoprene					
Isopropanolamine dodecylbenzene sul	prac ins		A		
Isosafrole	95000	18	C		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
iso-butyl alcohol	mis				
iso-Butylamine	0.8	20	A	0.70	A-CALC
Kelthane	s		E		
Kepone	6800	20	S		
Lasiocarpine	ins	20	A		
Lead	2800		E		
Lead sulfate	10	20	A		
Lindane	178		E		
Malathion	790000	20	A		
Maleic Acid	prac ins		E	-.79--.32	A
Melphalan	ins	20	A		
Mercaptodimethur	0.2		E		
Mercury	257000	20	A		
Methacrylonitrile	23300	20	E		
Methanethiol	mis	30	E		
Methanoic acid	s	20	A	-1.55	A-CALC
Methomyl	prac ins		E		
Methoxychlor	mis		E		
Methyl alcohol	1000	20	A		
Methyl Bromide	7400	20	A	1.1	D
Methyl chloride	700	20	A		
Methyl chloroform	mis		E	2.17	D
Methyl hydrazine	20000	20	A		
Methyl iodide	reacts		A	1.69	A
Methyl isocyanate	15000	20	A		
Methyl methacrylate	68		E		
Methyl parathion	sol		E		
Methylaziridine, 2-	ins	20	A		
Methylbutadiene, 1-					
Methylene bromide	13200	25	D		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Methylene chloride	ss		E	1.25	D
Methylenebis(2-chloroaniline), 4,4'	vss		E		
Methylthiouracil	ss		E		
Methyl-2-pentanone, 4-	mis	20	A		
Mevinphos	prac ins		E		
Mexacarbate	s	20	E		
Mitomycin C	mis		E		
Monoethylamine	s		E		
Monomethylamine	prac ins		E	0.57	A
Naled					
Naphthalene	ins	20	A		
Naphthenic acid	1700		C		
Naphthylamine, 1-	ss	20	A		
Naphthylamine, beta-	6		E		
Naphthylthiourea, alpha-	ins	20	A		
Nickel	642000	20	A		
Nickel chloride	1.3		E		
Nickel hydroxide	293000	20	A		
Nickel sulfate	mis	20	E		
Nicotine and salts	sol	20	A		
Nitric acid					
Nitric oxide	800	19	C		
Nitroaniline, p-	1900	20	C		
Nitrobenzene	dec	20	C	1.86	A
Nitrogen dioxide	dec		E		
Nitrogen dioxide	1800	20	C		
Nitroglycerine	ss	20	A		
Nitrophenol (mixed)	s		E		
Nitrophenol, m-	2100	20	D		
Nitrophenol, o-	16000		E	7.21	D

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Nitrophenol, p-	17000	20	A	17.21	D
Nitropropane, 2-					
Nitrosodiethanolamine, N-	s	20	E		
Nitrosodiethylamine, N-	mis		E		
Nitrosodimethylamine, N-	ss		E	0.06	D
Nitrosodiphenylamine, N-	30000	20	A		
Nitrosomethylvinylamine, N-	77000	20	A		
Nitrosopiperidine, N-	13000	20	A		
Nitroso-N-ethylurea, N-	14000	20	A		
Nitroso-N-methylurea, N-	ss	20	A		
Nitroso-N-methylurethane, N-					
Nitrotoluene	500	20	A		
Nitrotoluene, m-	652	30	C	2.40-.45	A
Nitrotoluene, o-	442	30	C		
Nitrotoluene, p-	1200	20	A	2.37-.42	A
N-Nitrosodi-n-butylamine	mis	20	A		
N-Nitrosopyrrolidine	mis		E		
Octamethyldiphosphoramidate	570	10	E		
Osmium oxide	1700	20	A		
Paraformaldehyde	20	20	A		
Parathion	prac ins		E		
Pentachloronitrobenzene	14	20	C		
Pentachlorophenol	763		E	4.74	D
Phenacetin	1.6	15	C		
Phenanthrene	82000	15	C		
Phenol	438	20	A	1.46	D
Phenylmercuric acetate	57.8		E		
Phorate	mis	20	A		
Phosphoric acid	0.03	20	A		
Phosphorus					

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Phosphorus oxychloride	dec		E		
Phosphorus sulfide	dec		E		
Phosphorus trichloride	9444		E		
Phthalic anhydride	sol	20	A		
Picoline, 2-				1.06	A
Polychlorinated biphenyls (PCB's)	49000		E		
Potassium bichromate	500000	20	A		
Potassium cyanide	1070000	15	A		
Potassium hydroxide	190141		E		
Potassium permanganate	15	20	A		
Pronamide	sol	20	A		
Propane sultone, 1,3-	mis		E		
Propanone, 2-	prac ins	20	A	-0.24	A
Propargite	220000	20	A		
Propenal, 2-	ss		E	-0.09	D
Propenenitrile, 2-	mis	20	A	-0.14	D
Propen-1-ol, 2-	mis	30	E	0.17	A
Propionic acid	dec		E	0.25-0.33	A
Propionic anhydride	sol	20	A		
Propylamine, n-	41000	20	A	0.15-.37	A
Propylene oxide	sol	20	A		
Propyn-1-ol, 2-	ins		E		
Pyrene	ins		E		
Pyrethrins	prac ins		E		
Pyrethrins	sol	20	A		
Pyridine	sol	20	A		
Quinoline	2290000	30	C	2.04-.06	A
Resorcinol	ins	20	A		
Safrole	ins		E		
Selenium	ins	20	A		

NAME	SOLUBILITY DATA		OCTANOL/WATER COEFFICIENT		
	SOLUBILITY (mg/lit)	TEMPERATURE (C)	REF.	KOW	RKOW
Silver	ins		E		
Silver cyanide	250000		E		
Silver nitrate	s		E		
Silvex	dec		E		
Sodium	sol	20	A		
Sodium arsenite	417000	17.2	A		
Sodium azide	1800	0	E		
Sodium bichromate	s	20	A		
Sodium bisulfite	s		E		
Sodium chromate	480000	10	A		
Sodium cyanide					
Sodium dodecylbenzene sulfonate	40000		E		
Sodium fluoride	sol	20	A		
Sodium hydrosulfide	1110000		E		
Sodium hydroxide	sol	20	A		
Sodium hypochlorite	dec		E		
Sodium methylate	1800000		E		
Sodium nitrite	77000	20	A		
Sodium phosphate, dibasic	457143		E		
Sodium phosphate, tribasic	s	19	E		
Streptozotocin	156		E		
Strychnine and salts	ss		E		
Styrene	dec	0	E		
Sulfur monochloride	mis		E		
Sulfuric Acid	sol	20	A		
Sulfuric acid					
T amines, 2,4,5-					
T amines, 2,4,5-					
T amines, 2,4,5-					
T amines, 2,4,5-					

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
T esters, 2,4,5-		30	E		
T esters, 2,4,5-					
T esters, 2,4,5-					
T esters, 2,4,5-					
T esters, 2,4,5-					
T salts, 2,4,5-	200	20	A		
Tetrachlorodibenzo-p-dioxin, 2,3,7,	2900	20	C		
Tetrachloroethane, 1,1,2,2-	15000	20	A	2.56	D
Tetrachloroethylene	prac ins		E	2.6	A
Tetraethyl lead	mis		E		
Tetraethyl pyrophosphate		20	A		
Tetraethyldithiopyrophosphate	sol	20	A		
Tetrahydrofuran	ins		E		
Tetranitromethane	ins		E		
Thallium	92000	25	A		
Thiourea	500	20	A	-2.38	A-CALC
Toluene	ins		A	2.69	A
Toluene diisocyanate	0.003	25	D	0-1	A-EST
Toxaphene				3.3+-0.4	D-EST
TP acid esters, 2,4,5-	s		E		
Triazol-3-amine, 1H-1,2,4-	154000	25	E		
Trichlorfon	30	25	D		
Trichlorobenzene, 1,2,4-	4500	20	A	4.26	D
Trichloroethane, 1,1,2-	1000	20	A		
Trichloroethylene	1100	25	C	2.29	D
Trichloromonofluoromethane	ins		A	2.53	D
Trichlorophenol	ins	20	A		
Trichlorophenol, 2,3,4-	ins	20	A		
Trichlorophenol, 2,3,5-	ins	20	A		
Trichlorophenol, 2,3,6-	2000		E		

NAME	SOLUBILITY DATA		REF.	OCTANOL/WATER COEFFICIENT	
	SOLUBILITY (mg/lit)	TEMPERATURE (C)		KOW	RKOW
Trichlorophenol, 2,4,5-	800	25	C		
Trichlorophenol, 2,4,6-	ss		E	3.38	
Trichlorophenol, 3,4,5-					
Triethanolamine dodecylbenzene sulfss			E		
Triethylamine	475000	20	A		
Trimethylamine				0.27	
Tris(2,3-dibromopropyl) phosphate	20000	20	A		
Trypan Blue	238	30	E		
T, 2,4,5-	ss	20	E		
Uracil Mustard	8000		E		
Vanadium (V) oxide	sol	20	A		
Vanadyl sulfate	25000		C		
Vinyl Acetate	1.1	25	D		
Vinylchloride	prac ins		E	0.6	D
Warfarin	prac ins		E		
Xylene	0.3	20	A		
Xylene, m-	ins		E	3.20	
Xylene, o-	ins		E		
Xylene, p-	ss		E		
Xylenol	ins		E		
Zinc	4320000	25	A		
Zinc chloride	5	20	A		
Zinc cyanide	ins		E		
Zinc phosphide	s	20	A		
Zinc sulfate	7810	2.22	A		
Zirconium potassium fluoride	dec		E		
Zirconium tetrachloride					

A.5.5
ALPHABETICAL LISTING
OF
REPORTABLE QUANTITY INFORMATION

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Acenaphthene	B		B	P
Acetic Acid	C	D	D	F
Acetic anhydride	C	D	D	F
Acetone cyanohydrin	A	D	A	F
Acetophenone	D	D	D	F
Acetyl bromide	D		D	F
Acetylaminofluorene, 2-	X		X	S
Acrylamide	D		D	F
Acrylic acid	D	D	D	F
Aldicarb	X		X	F
Aldrin	X		X	S
Allyl chloride	C	C	C	F
Aluminum phosphide	B		B	F
Aluminum sulfate	D		D	F
Aminopyridine, 4-	C		C	F
Ammonia	A	B	B	P
Ammonium acetate	D		D	F
Ammonium bifluoride	C		B	P
Ammonium bisulfite	D		D	F
Ammonium carbamate	D		D	F
Ammonium chloride	D		D	F
Ammonium fluoborate	D		D	F
Ammonium fluoride	C		B	F
Ammonium hydroxide	C		C	F
Ammonium oxalate	D		D	F
Ammonium silicofluoride	C		C	F
Ammonium sulfamate	D		D	F
Ammonium sulfide	B	C	B	F
Ammonium sulfite	D		D	F
Ammonium thiocyanate	D		D	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Ammonium thiosulfate	D		D	F
Ammonium vanadate	C		C	F
Amyl acetate	C	C	D	F
Amyl acetate, iso-	C	C	D	F
Amyl acetate, sec-	C	C	D	F
Amyl acetate, tert-	C	C	D	F
Anthracene	D		D	P
Antimony	D		D	P
Antimony trichloride	C		C	F
Antimony trioxide	C		C	F
Arsenic	X		X	S
Arsenic acid	X		X	S
Arsenic (V) oxide	B		D	S
Asbestos	X		X	S
Auramine	X		X	S
Azaserine	X		X	S
Aziridine	X		X	S
Benzenamine	C	D	D	F
Benzene	B	C	C	S
Benzenthioal	B		B	F
Benzidine	X		X	S
Benzoic Acid	D	D	D	F
Benzonitrile	C	D	D	F
Benzo(a)pyrene, 3,4-	X		X	S
Benzoyl chloride	C	D	C	F
Benzo(b)fluoranthene	X		X	S
Benzo(j,k)fluorene	B	D	B	P
Benzo[ghi]perylene	D		D	P
Benzo(phenanthrene), 1,2-	X		X	S
Benzyl chloride	B	D	B	S

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS

Benz(a)anthracene	X		X	S
Beryllium	X		X	S
Bioxirane, 2,2'-	X		X	S
Bis(2-chloroethoxy) methane	C	D	C	F
Bis(2-chloroethyl) ether	X	D	X	S
Bis(2-chloroisopropyl) ether	C	D	C	F
Bis(2-ethylhexyl)phthalate	X		X	S
Bis(chloromethyl)ether	X		X	S
Bis(dimethylthiocarbamoyl)disulfide	A		A	F
Bromoform	B		B	F
Butanol, 1-	D	C	D	F
Butanone peroxide, 2-	C	A	A	F
Butanone, 2-	C	C	D	F
Butenal, 2-	B	C	B	F
Butyl acetate	C	C	D	F
Butyl acetate, iso-	C	C	D	F
Butyl acetate, sec-	C	C	D	F
Butyl acetate, tert-	C	C	D	F
Butyl benzyl phthalate	B	D	B	F
Butylamine	C	C	C	F
Butylamine, sec-	C	C	C	F
Butylamine, sec-	C	C	C	F
Butylamine, tert-	C	C	C	F
Butyric acid	D	D	D	F
Cacodylic acid	X		X	S
Cadmium	X		X	S
Calcium carbide	D		A	F
Calcium dodecylbenzene sulfonate	C		C	F
Calcium hypochlorite	B		A	F
Captan	A		A	P

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Carbaryl	B		B	F
Carbofuran	A		A	F
Carbon disulfide	B	C	B	P
Carbon tetrachloride	C		D	S
Carbonyl chloride	A		A	F
Chlorambucil	X		X	S
Chlordane	X		X	S
Chlorine	A		A	F
Chlorine cyanide	A		A	F
Chlornaphazine	X		X	S
Chloroacetaldehyde	C		C	F
Chloroaniline, p-	C		C	F
Chlorobenzene	C	C	B	F
Chlorodibromomethane	B		B	F
Chloroethane	D	B	B	P
Chloroethyl vinyl ether, 2-	C	C	C	F
Chloroform	C		D	S
Chloronaphthalene, 2-	D		D	F
Chlorophenol, 2-	B	D	B	F
Chloropropionitrile, 3-	C	D	C	F
Chlorosulfonic acid	C		C	F
Chloro-2,3-epoxypropane, 1-	C	C	C	S
Chlorpyrifos	X		X	F
Chromic acid	C	A	C	S
Chromium	X		X	S
Chromous chloride	C		C	P
Cobaltous bromide	C		C	F
Cobaltous formate	C		C	F
Cobaltous sulfamate	C		C	F
Copper	D		D	P

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Copper Cyanides	A		A	F
Coumaphos	A		A	F
Creosote	X	D	X	S
Cresol(s)	B	D	C	P
Cresol-o	B	D	C	P
Cresol-p	B	D	C	P
Cumene	D	C	D	F
Cupric chloride	A		A	P
Cupric sulfate	A		A	P
Cyanides-Soluble Salts/Complexes	A		A	F
Cyanogen	C	B	B	F
Cyclohexadienedione, 1,4-	A	D	B	P
Cyclohexane	C	C	C	F
Cyclohexanone	D	D	D	F
Cyclophosphamide	X		X	S
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
D Esters, 2,4-	B		B	F
Daunomycin	X		X	S
DDE, 4,4'-	X		X	S
Diamine	X	A	X	S
Diaminotoluene	X		X	S
Diazinon	X		X	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Dibenzo[a,h]anthracene	X		X	S
Dibenz[a,i]pyrene	X		X	S
Dibromo-3-chloropropane, 1,2-	X		X	S
Dibutyl phthalate	A	D	A	F
Dicamba	C		C	F
Dichlobenil	B		B	F
Dichlone	X		X	F
Dichloro diphenyl trichloroethane	X		X	S
Dichlorobenzene (mixed)	B	D	B	F
Dichlorobenzene, m-	B	D	B	F
Dichlorobenzene, o-	B	D	B	F
Dichlorobenzidine, 3,3'-	X		X	S
Dichlorobromomethane	D		D	F
Dichlorodifluoromethane	D		D	F
Dichlorodiphenyl dichloroethane	X		X	S
Dichloroethane, 1,1-	C	C	C	F
Dichloroethane, 1,2-	D	C	D	S
Dichloroethylene, 1,1-	C	B	D	S
Dichloroethylene-trans, 1,2-	C	C	C	F
Dichlorophenol, 2,4-	B	D	B	F
Dichlorophenoxyacetic acid, 2,4-	B		B	F
Dichloropropane	D	C	C	F
Dichloropropane, 1,1-	D	C	C	F
Dichloropropane, 1,2-	D	C	C	F
Dichloropropane, 1,3-	D	C	C	F
Dichloropropane-Dichloropropene-MIX	B	C	B	P
Dichloropropene(s)	B	C	B	P
Dichloropropene, 1,3-	B	C	B	P
Dichloropropene, 2,3-	B	C	B	P
Dichloropropionic acid, 2,2-	D		D	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Dichlorvos	A		A	F
Dieldrin	X		X	S
Diethyl phthalate	C		C	F
Diethylamine	B	C	B	P
Diethylarsine	X	A	X	S
Diethylene dioxide, 1,4-	X	C	X	S
Diethylhydrazine, N,N'-	X		X	S
Diethylstilbestrol	X		X	S
Dihydrosafrole	X		X	S
Dimethoate	A		A	F
Dimethoxybenzidine, 3,3'-	X		X	S
Dimethyl phthalate	D	D	D	F
Dimethyl sulfate	X	D	X	S
Dimethylamine	C	B	C	P
Dimethylaminoazobenzene	X		X	S
Dimethylbenzidine, 3,3'-	X		X	S
Dimethylcarbamoyl chloride	X		X	S
Dimethylhydrazine, 1,1-	X	A	X	S
Dimethylhydrazine, 1,2-	X		X	S
Dinitrobenzene (mixed)	B		B	F
Dinitrobenzene, m-	B		B	F
Dinitrobenzene, o-	B		B	F
Dinitrobenzene, p-	B		B	F
Dinitrophenol, 2,4-	A		A	F
Dinitrophenol, 2,5-	A		A	F
Dinitrophenol, 2,6-	A		A	F
Dinitrotoluene	B		C	S
Dinitrotoluene, 2,4-	B	D	C	S
Dinitrotoluene, 2,6-	B		C	S
Dinitrotoluene, 3,4-	B		C	S

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Dinitro-o-cresol, 4,6-	A		A	F
Dinoseb	C		C	F
Dipropylamine	D	C	D	F
Diquat	C		C	F
Disulfoton	B		X	F
Diuron	B		B	F
Di-n-octyl phthalate	D	D	D	F
Di-n-propylnitrosamine	X		X	S
Dodecylbenzenesulfonic acid	C		C	F
EDTA	D		D	F
Endosulfan	X		X	F
Endrin	X		X	F
Ethanal	C	B	C	F
Ethanenitrile	D	C	D	F
Ethanethioamide	X		X	S
Ethanoyl chloride	C	C	D	F
Ethion	A		A	P
Ethyl 4,4'-dichlorobenzilate	X		X	S
Ethyl acetate	D	C	D	F
Ethyl acrylate	D	C	C	F
Ethyl carbamate (Urethane)	X		X	S
Ethyl ether	D	B	B	F
Ethyl methacrylate	D	C	C	F
Ethyl methanesulfonate	X		X	S
Ethylbenzene	C		C	F
Ethylene dibromide	C		C	S
Ethylene oxide	X	B	X	S
Ethylenediamine	C	C	D	F
Ferric chloride	C		C	F
Ferric dextran	D		D	P

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS

Ferric Nitrate	C		C	F
Ferrous chloride	B		B	F
Ferrous sulfate	C		C	F
Ferrous sulfate	C		C	F
Fluorine	C	A	A	F
Fluoroacetamide	B		B	F
Fluoroacetic acid sodium salt	A		A	F
Formaldehyde (SOLUTION) Note 1	C	B	C	S
Fumaric Acid	D		D	F
Furan	B	B	B	F
Furancarboxaldehyde, 2-	C	D	D	F
Furandione, 2,5-	D	D	D	F
Glycidylaldehyde	X		X	S
Guthion	C		X	F
Heptachlor	C		X	S
Hexachlorobenzene	X		X	S
Hexachlorobutadiene	X		X	S
Hexachlorocyclopentadiene	X		X	S
Hexachloroethane	X		X	S
Hydrochloric acid (SOLUTION) Note 1	D		D	F
Hydrocyanic acid	A	B	A	F
Hydrofluoric acid	B		B	F
Hydrogen phosphide	B	B	B	F
Hydrogen sulfide	B	B	B	P
Imidazolidinethione, 2-	X		X	S
Indeno(1,2,3-cd)pyrene	X		X	S
Isophorone	D	D	D	F
Isoprene	C	B	B	P
Isopropanolamine dodecylbenzene sul	C		C	F
Isosafrole	X		X	S

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
iso-butyl alcohol	D	C	D	F
iso-Butylamine	C		C	F
Kelthane	A		A	F
Kepone	X		X	S
Lasiocarpine	X		X	S
Lead	D		D	P
Lead sulfate	B		B	P
Lindane	X		X	S
Malathion	A	D	B	F
Maleic Acid	D		D	F
Melphalan	X		X	S
Mercaptodimethur	A		A	F
Mercury	X		X	F
Methacrylonitrile	C		C	F
Methanethiol	B	B	B	F
Methanoic acid	D	D	D	F
Methomyl	B		B	F
Methoxychlor	X		X	F
Methyl alcohol	D	C	D	F
Methyl Bromide	C		C	F
Methyl chloride	C	B	B	P
Methyl chloroform	C		C	F
Methyl hydrazine	C		A	F
Methyl iodide	X		X	S
Methyl isocyanate	X	C	X	S
Methyl methacrylate	C	C	C	F
Methyl parathion	B		B	P
Methylaziridine, 2-	X		X	S
Methylbutadiene, 1-	C	B	B	F
Methylene bromide	C		C	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Methylene chloride	C	D	C	F
Methylenebis(2-chloroaniline), 4,4'	X		X	S
Methylthiouracil	X		X	S
Methyl-2-pentanone, 4-	D	C	D	F
Mevinphos	X		A	F
Mexacarbate	C		C	F
Mitomycin C	X		X	S
Monoethylamine	C	B	B	P
Monomethylamine	C	B	B	F
Naled	A		A	F
Naphthalene	B	D	B	F
Naphthenic acid	B		B	F
Naphthylamine, 1-	X		X	S
Naphthylamine, beta-	X		X	S
Naphthylthiourea, alpha-	B		B	F
Nickel	X		X	S
Nickel chloride	D		D	S
Nickel hydroxide	C		C	S
Nickel sulfate	D		D	S
Nicotine and salts	B		B	F
Nitric acid	C		C	F
Nitric oxide	C	A	A	F
Nitroaniline, p-	D		D	F
Nitrobenzene	C	D	C	F
Nitrogen dioxide	B	A	A	F
Nitrogen dioxide	B	A	A	F
Nitroglycerine	A	A	A	F
Nitrophenol (mixed)	B		B	F
Nitrophenol, m-	B		B	F
Nitrophenol, o-	B		B	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Nitrophenol, p-	B		B	F
Nitropropane, 2-	X	C	X	S
Nitrosodiethanolamine, N-	X		X	S
Nitrosodiethylamine, N-	X		X	S
Nitrosodimethylamine, N-	X		X	S
Nitrosodiphenylamine, N-	B		B	F
Nitrosomethylvinylamine, N-	X		X	S
Nitrosopiperidine, N-	X		X	S
Nitroso-N-ethylurea, N-	X		X	S
Nitroso-N-methylurea, N-	X		X	S
Nitroso-N-methylurethane, N-	X		X	S
Nitrotoluene	C	D	C	F
Nitrotoluene, m-	C	D	C	F
Nitrotoluene, o-	C	D	C	F
Nitrotoluene, p-	C	D	C	F
N-Nitrosodi-n-butylamine	X		X	S
N-Nitrosopyrrolidine	X		X	S
Octamethyldiphosphoramidate	B		B	F
Osmium oxide	C		C	F
Paraformaldehyde	C	D	C	F
Parathion	X		X	S
Pentachloronitrobenzene	X		X	S
Pentachlorophenol	A		A	S
Phenacetin	X		X	S
Phenanthrene	D	D	D	P
Phenol	B	D	C	P
Phenylmercuric acetate	B		B	P
Phorate	B		C	P
Phosphoric acid	D		D	F
Phosphorus	X	A	X	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Phosphorus oxychloride	C		C	F
Phosphorus sulfide	B		B	F
Phosphorus trichloride	C		C	F
Phthalic anhydride	D	D	D	F
Picoline, 2-	D	D	D	F
Polychlorinated biphenyls (PCB's)	X		X	S
Potassium bichromate	C		C	S
Potassium cyanide	A		A	F
Potassium hydroxide	C		C	F
Potassium permanganate	B		B	F
Pronamide	D		D	F
Propane sultone, 1,3-	X		X	S
Propanone, 2-	D	C	D	F
Propargite	A		A	F
Propenal, 2-	X	C	X	F
Propenenitrile, 2-	B	C	B	S
Propen-1-ol, 2-	B	C	B	F
Propionic acid	D	D	D	F
Propionic anhydride	D	D	D	F
Propylamine, n-	C	C	D	F
Propylene oxide	D	B	B	F
Propyn-1-ol, 2-	C	C	C	F
Pyrene	D		D	P
Pyrethrins	X		X	F
Pyrethrins	X		X	F
Pyridine	B	C	C	P
Quinoline	C	D	D	F
Resorcinol	C	D	D	F
Safrole	X	D	X	S
Selenium	B		B	P

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Silver	C		C	F
Silver cyanide	X		X	F
Silver nitrate	X		X	F
Silvex	B		B	F
Sodium	C		A	F
Sodium arsenite	C		C	S
Sodium azide	C		C	F
Sodium bichromate	C		C	S
Sodium bisulfite	D		D	F
Sodium chromate	C		C	S
Sodium cyanide	A		A	F
Sodium dodecylbenzene sulfonate	C		C	F
Sodium fluoride	C		C	F
Sodium hydrosulfide	D		D	F
Sodium hydroxide	C		C	F
Sodium hypochlorite	B		B	F
Sodium methylate	C		C	F
Sodium nitrite	B		B	P
Sodium phosphate, dibasic	D		D	F
Sodium phosphate, tribasic	D		D	F
Streptozotocin	X		X	S
Strychnine and salts	A		A	F
Styrene	C	C	C	F
Sulfur monochloride	C		C	F
Sulfuric Acid	C		C	F
Sulfuric acid	C		C	F
T amines, 2,4,5-	D		D	F
T amines, 2,4,5-	D		D	F
T amines, 2,4,5-	D		D	F
T amines, 2,4,5-	D		D	F

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
T esters, 2,4,5-	C		C	F
T esters, 2,4,5-	C		C	F
T esters, 2,4,5-	C		C	F
T esters, 2,4,5-	C		C	F
T esters, 2,4,5-	C		C	F
T salts, 2,4,5-	C		C	F
Tetrachlorodibenzo-p-dioxin, 2,3,7,	X		X	S
Tetrachloroethane, 1,1,2,2-	X		X	S
Tetrachloroethylene	X		X	S
Tetraethyl lead	A	D	A	P
Tetraethyl pyrophosphate	A		A	P
Tetraethyldithiopyrophosphate	B		B	F
Tetrahydrofuran	D	C	C	F
Tetranitromethane	B		A	F
Thallium	C		C	P
Thiourea	X		X	S
Toluene	C	C	C	F
Toluene diisocyanate	B		B	F
Toxaphene	X		X	S
TP acid esters, 2,4,5-	B		B	F
Triazol-3-amine, 1H-1,2,4-	X		X	S
Trichlorfon	B		B	P
Trichlorobenzene, 1,2,4-	B	D	B	F
Trichloroethane, 1,1,2-	X		X	S
Trichloroethylene	C	C	C	S
Trichloromonofluoromethane	D		D	F
Trichlorophenol	A		A	S
Trichlorophenol, 2,3,4-	A		A	S
Trichlorophenol, 2,3,5-	A		A	S
Trichlorophenol, 2,3,6-	A		A	S

NAME	RQ TOXICITY	RQ IGNITABILITY	RQ FINAL	RQ STATUS
Trichlorophenol, 2,4,5-	A		A	S
Trichlorophenol, 2,4,6-	A		A	S
Trichlorophenol, 3,4,5-	A		A	S
Triethanolamine dodecylbenzene sulf	C		C	F
Triethylamine	C	C	D	F
Trimethylamine	C	B	B	P
Tris(2,3-dibromopropyl) phosphate	X		X	S
Trypan Blue	X		X	S
T, 2,4,5-	C		C	F
Uracil Mustard	X		X	S
Vanadium (V) oxide	C		C	P
Vanadyl sulfate	C		C	P
Vinyl Acetate	C	C	D	F
Vinylchloride	X	B	X	S
Warfarin	B		B	F
Xylene	C	C	C	F
Xylene, m-	C	C	C	F
Xylene, o-	C	C	C	F
Xylene, p-	C	C	C	F
Xylenol	C		C	F
Zinc	C	D	C	P
Zinc chloride	C		C	P
Zinc cyanide	A		A	P
Zinc phosphide	C		B	P
Zinc sulfate	C		C	P
Zirconium potassium fluoride	C		C	F
Zirconium tetrachloride	D		D	F

Appendix B

APPENDIX B

PROPERTIES OF PETROLEUM
PRODUCTS STORED IN USTs

B.1

OVERVIEW

- I. Properties of petroleum products stored in UST's are found in the following table:

Two primary references (ASTM and NIPER) are identified on Table 1, and refer to:

ASTM, 1984. Annual Book of ASTM Standard Section 5 - Petroleum Products, Lubricants, and Fossil Fuels. Philadelphia: ASTM.

Shelton, E.M. and Dickson, C.L. 1984 Diesel Fuel Oils - 1984. Bartlesville, OK: National Institute for Petroleum and Energy Research. Prepared for the API.

Shelton, E.M. and Dickson, C.L. 1985. Motor Gasolines - Summer 1984, Motor Gasolines - Winter 1984, Heating Oils - 1985, Aviation Turbine Fuels - 1984. Bartlesville, OK: National Institute for Petroleum and Energy Research. Prepared for the API.

All data not obtained from the above sources are coded as follows:

REFERENCE

CODE	REFERENCE
A	Speight, J.G. 1980. The Chemistry & Technology of Petroleum. New York: Marcel Dekker, Inc.
B	Hobson, G.D. (Ed.) 1984. Modern Petroleum Technology Part 2 - Fifth Edition. London: John Wiley & Sons.
C	McCain, Jr., W.D., 1973. The Properties of Petroleum Fluids. Tulsa: Petroleum Publishing Company.
D	Goodger, E.M. 1975. Hydrocarbon Fuels. New York: John Wiley & Sons.
E	Stavinoha and Newman 1976. The Isolation and Determination of Aromatics in Gasoline by Gas Chromatography. Current Research in Petroleum Fuels: Volume I. New York: MSS Information Corporation.

- II. The following abbreviations are used:

Chem. Class: Chemical Class
A: Aromatics
AA: Aromatic Amines

AL:	Alcohols
CA:	Carboxylic Acids
CD:	Conjugated Diene
CO:	Cyclicolefins
N:	Napthalenes
O:	Olefins
P:	Paraffins
Ph&C:	Phenols and Cresols
Sol in Water:	Solubility in water
S:	Soluble
ssol:	Slightly Soluble
ins:	insoluble
mis:	miscible
pracins:	practically insoluble

PROPERTIES OF PETROLEUM PRODUCTS
STORED IN UNDERGROUND STORAGE TANKS

PETROLEUM PRODUCT	REFERENCE (NOTE 1)	SPECIFIC GRAVITY (NOTE 2)		KINEMATIC VISCOSITY (cST)		VAPOR PRESSURE (kPA)	P (%)	A (%)	N (%)	O (%)	DISTILLATION TEMPERATURE (°C) VOLUME PERCENT EVAPORATED					
		MIN/MAX	TEMP (°C)	MIN/MAX	TEMP (°C)						INITIAL	10%	20%	50%	90%	DRY POINT
1. Power Fuels - Civil Use																
A. Automotive Gasoline						(NOTE 3)		(NOTE 4)			(NOTE 3)		(NOTE 3)	(NOTE 3)		
1. Typical Ranges	D439-83	.72/.76 A	15.6 A	.50/.65 A	15.6 A	103 - 62 79		27 E			Max 50-70 60		Max 110-121 116	Max 185-190 185	225	
2. Leaded (Regular)	NIPER-138	.73	15.6			70		21-24E		8-10E	30	47	60	100	211	
3. Unleaded (Octane No. <90)	NIPER-138	.74	15.6			71		25-27E		6-8E	29	48	64	105	206	
4. Unleaded (Octane No. >90)	NIPER-138	.75	15.6			71		23-30E		5-8E	30	46	57	91	209	
B. Aviation Gasoline Grade 80,100,100 LL	D910-83					38 - 39 Min Max	50 - 60	10	20 - 30	0		75 Max		105 Max	170 Max	
C. Jet Fuel (Aviation Turbine Fuel) Civil Use																
1. Jet A (kerosene type)	NIPER-139 D1655-83a	0.8123 0.7753/ 0.8398	15.6 15.6		9.8 Max -34.4			17.3 20 Max	(NOTE 9) 1.66 3 Max	1.2		188 208 Max		212	300 Max	
2. Jet A-1 (kerosene type)	D1655-83a	0.7753/ 0.8398	15.6					20 Max	3 Max	<5 Approx.			143.3 Max	187.8 Max	243.3 Max	
3. Jet B (wide cut or naphtha)	D1655-83a	0.7507/ 0.8017	15.6	8.0 Max	-20			20 Max	3 Max							

PROPERTIES OF PETROLEUM PRODUCTS
STORED IN UNDERGROUND STORAGE TANKS

PETROLEUM PRODUCT	REFERENCE (NOTE 1)	SPECIFIC GRAVITY (NOTE 2)		KINEMATIC VISCOSITY (cST)		VAPOR PRESSURE (kPA)	P (°)	A (°)	N (°)	O (°)	DISTILLATION TEMPERATURE (°C) VOLUME PERCENT EVAPORATED					
		MIN/MAX	TEMP (°C)	MIN/MAX	TEMP (°C)						INITIAL	10%	20%	50%	90%	DRY POINT
II. Heating and Illuminating Oils																
A. Fuel Oils																
No. 1	D396 - 80			1.4/2.2												
No. 1	NIPER-141	0.813	15.6	1.65	37.8						175	192	---	221	251	274
No. 2	D396-80	0.856	15.6	2.0/3.6	37.8						196	221	---	264	317	347
No. 2	NIPER-141			2.97												
No. 4 (light)	D396-80	0.8762 Max		2.0/5.8	37.8											
No. 4 (heavy)				5.8/26.4	37.8											
No. 5 (light)				>26.4/65	37.8											
No. 5 (heavy)				>65/194	37.8											
No. 6				>65/194	37.8											
B. KEROSENE	D3699-83						(NOTE 10)		(NOTE 10)							
1K & 2K		0.78	15.6	1.0/1.9	40		39 A	Very Low A	43 A	Very Low A		205 Max				300
C. DIESEL FUEL OIL	1D	NIPER-137	0.8123	15.6	1.64	37.8	60-80 D	20-40 D			174	193		218	249	274
		D975-81			1.3/2.4	37.8									288 Max	
	2-D	NIPER-137	0.8524	15.6	2.97	37.8					196	226		267	317	345
		D975-81			1.9/4.1	37.8									338 Max	
	4-D	D975-81			5.5/24.0	37.8										
D. GAS TURBINE FUEL OILS (NOTE 8)																
	0-GT															
	1-GT		0.850 Max	15.6	1.3/2.4	40									28 Max	
	2-GT		0.876 Max	15.6	1.9/4.1	40									338 Max	
	3-GT					40										
	4-GT				5.5/638											

PROPERTIES OF PETROLEUM PRODUCTS
STORED IN UNDERGROUND STORAGE TANKS

PETROLEUM PRODUCT	ASTM SPEC.	SPECIFIC GRAVITY (NOTE 2)		KINEMATIC VISCOSITY (cST)		VAPOR PRESSURE (kPA)	P (%)	A (%)	N (%)	O (%)	DISTILLATION TEMPERATURE (°C) VOLUME PERCENT EVAPORATED					
		MIN/MAX	TEMP (°C)	MIN/MAX	TEMP (°C)						INITIAL	10%	20%	50%	90%	DRY POINT
III. Solvents																
A. NAPHTHAS HIGH FLASH AROMATIC Type I	D3734-83	0.864/0.864	15.6					90 Min.			149 Min.			168 Max.		179 Max.
Type II	D3734-83	0.880/0.910	15.6					90 Min.			177 Min.			196 Max.		216 Max.
B. VM & P NAPHTHAS Type I (Regular)	D3475-83	0.115/0.792	15.6					33 Max.			113 Min.			129 Max.		154 Max.
Type II (High Flash)	D3735-83	0.732/0.792	15.6					33 Max.			138 Min.			160 Max.		177 Max.
Type III (Odorless)	D3735-83	0.715/0.760	15.6				HIGH A	3 Max.			113 Min.			129 Max.		154 Max.
C. PETROLEUM EXTENDER OILS Type 101, 102, 103, 104	D2226-82	0.91/1.0520 A														
D. Petroleum Spirits																
Type I Regular Mineral Spirit (Stoddard Solvent)	D235-83	0.754/0.820									149			182		208
Type II High Flash Point	D235-83	0.768/0.820									177			196		211
Type III Odorless	D235-83	---/0.775									149			196		213
Type IV Low Dry Point	D235-83	0.754/0.800									149			174		185
E. Commercial Hexane	D1836-83	0.660/0.686									63					71

NOTES TO APPENDIX B

NOTE 1: References indicated are ASTM (1984) or NIPER (1984/85). All other data references are indicated (in specific columns) by parentheses (A), (B), (C), (D) or (E) and correspond to Speight (1980), Hobson (1984), McCain (1973), Goodger (1975), or Stavinoha, etal (1976), respectively. See Appendix B Introduction for full listing.

NOTE 2: Kinematic viscosity (cST): 1 cST = 1 mm²/sec.
Often reported °API @ 60°F (15.6°C) = 141.5/s.g. (cST) - 131.5

NOTE 3: Gasoline properties are specified by volatility classes: A, B, C, D or E. Class A is used in warm summer climates; Class E is used in cold winter climates. Ranges shown are Class E to Class A
Class C

NOTE 4: Benzene is found in gasoline from 1-5 volume percent (Speight, 1984).

NIPER (Summer, 1984):	Benzene Vol. %
Leaded:	1.35
Unleaded-Octane	
No < 90:	1.32
Unleaded-Octane	
No > 90:	1.34

NOTE 5: Grade 80, 100, 100L - No difference with respect to properties listed.

NOTE 6: Naphthalenes specified (not naphthenes).

NOTE 7: Data presented is for one sample only.

NOTE 8: Properties of gas turbine fuel oils are very similar to those of other fuels (ASTM-D2880-82):

0-GT:	Jet B, gasoline
1-GT:	Grade No. 1 fuel oil, No. 1-D diesel fuel
2-GT:	Grade No. 2 fuel oil, No. 2-D diesel fuel
3-GT & 4-GT:	Grade No. 4, 5 lights, 5 heavy and 6 fuel oil, No. 4-D diesel fuel

NOTE 9: The data presented with respect to jet fuel for "%N" are for naphthenates (not naphthenes), a group of benzene-driven hydrocarbons which are undesirable in jet fuel.

Appendix C

APPENDIX C

PROPERTIES OF HYDROCARBONS
KNOWN TO BE CONSTITUENTS OF
GASOLINE & FUEL OIL

C.1

OVERVIEW

- I. Properties of hydrocarbons known to be constituents of gasoline and fuel oil are found herein, as follows:

C.2 Alphabetical chemical list of property data

- C.2.1 Name, synonym, chemical formula and reference 1, 2, 3, 4 and 5
- C.2.2 Molecular weight, density, boiling point, melting point and vapor pressure
- C.2.3 Solubility in water and chemical class

- II. The following numeric codes refer to source(s) used to identify gasoline and/or fuel oil constituents:

1. Component of Sunoco 260

Jamison, V.W., Raymond, R.L., and Hudson, J.O., 1976. Biodegradation of High-Octane Gasoline, IN Proceedings of the Third International Biodegradation Symposium (Ed. J.M. Sharpley & A.M. Kaplan), p. 187-196.

2. Components of Unleaded Gasoline (API Research Product 44)

Domask, W.G., 1983 Introduction to Petroleum Hydrocarbon Chemistry and Composition in Relation to Petroleum-Derived Fuels and Solvents. IN Proceedings of the Workshop on the Kidney Effects of Hydrocarbons. Boston, MA.

3. Gasoline Components

ICF, Inc. August 1985. Draft Report, Section 1.3 of Work Assignment 182, Task 2 - Petroleum Data Collection and Assessment of Risk Approach.

4. Number 2 Fuel Oil Components

ICF, Inc. August 1985. Draft Report, Section 1.3 of Work Assignment 182, Task 2 - Petroleum Data Collection and Assessment of Risk Approach.

5. Gasoline Components

Brookman, G.T., Flanagan, M. and Kebe, J.O. 1985. Literature Survey: Hydrocarbon Solubility and Attenuation Mechanisms. East Hartford, CT: TRC Environmental Consultants, Inc. Prepared for Environmental Affairs Department - American Petroleum Institute.

III. The following abbreviations are used in C.1.2 and C.1.3.

B.P.: Boiling Point
M.P.: Melting Point
mmHg: millimeters of mercury (11 mmHg = 1 torr)
Chem. Class - chemical class
A: aromatics
AA: aromatic amines
AL: alcohols
CA: carboxylic acids
CD: conjugated diene
CO: cycloolefins
N: naphthalenes
O: olefins
P: paraffins
Ph&C: phenols and cresols
Sol. in water: solubility in water
S: soluble
ssol: slightly soluble
ins: insoluble
mis: miscible
prac. ins.: practically insoluble

IV: Note 1: Solubility data may be assumed to be between 15°C and 25°C unless otherwise noted.

Note 2: All solubility data in Appendix C is from:

Brookman, G.T., Flanagan, M. and Kebe, J.O. 1985. Literature Survey: Hydrocarbon Solubility and Attenuation Mechanisms. East Hartford, CT: TRC Environmental Consultants, Inc. Prepared for Environmental Affairs Department - American Petroleum Institute.

C.2.1

ALPHABETICAL LISTING OF NAME,
SYNONYM, CHEMICAL FORMULA AND REFERENCE

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Aniline	Aminobenzene	C6H7N					0
Anthracene		C14 H10					0
Benzene		C6H6	0	0	0		
Benzoic Acid	Benzenecarboxylic acid						0
Biphenyl	Phenylbenzene	C6H5					0
Butadiene, 1,3-		C4H6					0
Butane, n-		C4H10	0	0			0
Butene(trans), 2-		CH3CH:CHCH3	0		0		
Butene, 1-		CH3CH2CH:CH2					0
Butene, cis-2-		C4H8					0
Butene, trans-2-		C4H8					0
Butylbenzene, iso-		C10H14					0
Butylbenzene, n-	1-Phenylbutane	C10H14					0
Butylbenzene, sec-		C10H14					0
Butylbenzene, sec-							0
Butylbenzene, t-		C10H14					0
Butylcyclohexane, iso-		C10H20					0
Butylcyclohexane, sec-	2-Cyclohexylbutane	C10H20					0
Cresol, m-	3-Hydroxy-toluene	C7H8O					0
Cresol, o-	2-Hydroxy-toluene	C7H8O					0
Cresol, p-	4-Hydroxy-toluene	C7H8O					0
Cycloheptane		C7H14					0
Cyclohexane	Hexahydrobenzene	C6H12	0		0		0
Cyclohexene		C6H10					0
Cyclopentane	Pentamethylene	C5H10			0		0
Cyclopentene		C5H8					0
Decane, n-		CH3(CH2)8CH3			0		0
Decanoic Acid							0
Decene, 1-	n-Decylene	CH3(CH2)7CH:CH2					0
Decene, cis-2-		C10H20					0
Decene, trans-2-		C10H20					0
Diethylbenzene, 1,2-		C10H14				0	0
Diethylbenzene, 1,3-		C10H14					0
Diethylbenzene, 1,4-		C10H14					0
Dihydroindene, 2,3-	Indan						0
Dimethylbenzene, 1,2-	o-Xylene	C8H10	0	0	0	0	

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Dimethylbenzene, 1,3-	m-Xylene	C8H10	0	0	0	0	
Dimethylbenzene, 1,4-	p-Xylene	C8H10	0	0	0	0	
Dimethylbutane, 2,2-	Neohexane	CH3CH2C(CH3)2	0		0		0
Dimethylbutane, 2,3-		(CH3)2CHCH(CH3)2	0	0	0		0
Dimethylcyclohexane, cis-1,2-		C8H16	0				
Dimethylcyclohexane, cis-1,3-		C8H16	0				
Dimethylcyclohexane, cis-1,4-		C8H16	0				
Dimethylcyclohexane, trans 1,2-		C8H16	0				
Dimethylcyclohexane, trans-1,3-		C8H16	0				
Dimethylcyclohexane, trans-1,4-		C8H16	0				
Dimethylcyclopentane, 1,1-		C7H14	0		0		0
Dimethylcyclopentane, cis-1,3-		C7H14	0	0			
Dimethylcyclopentane, trans-1,3-		C7H14	0	0	0		
Dimethylheptane, 2,2-			0				0
Dimethylheptane, 2,3-		C9H20					0
Dimethylheptane, 2,4-		C9H20					0
Dimethylheptane, 2,5-		C9H20					0
Dimethylheptane, 2,6-		C9H20					0
Dimethylheptane, 3,3-		C9H20					0
Dimethylheptane, 3,4-		C9H20					0
Dimethylheptane, 3,5-		C9H20					0
Dimethylhexane, 2,2-		CH3(CH2)3C(CH3)3	0				0
Dimethylhexane, 2,3-		CH3CH2CH2CH(CH3)CH(CH3)2	0		0		0
Dimethylhexane, 2,4-		CH3CH2CH(CH3)CH2CH(CH3)2	0		0		0
Dimethylhexane, 2,5-		(CH3)2CHCH2CH2CH(CH3)2	0		0		0
Dimethylhexane, 3,3-		CH3CH2CH2C(CH3)2CH2CH3					0
Dimethylhexane, 3,4-		CH3CH2CH(CH3)CH(CH3)CH2CH3					0
Dimethylnaphthalene, 1,2-							0
Dimethylnaphthalene, 1,3-							0
Dimethylnaphthalene, 1,4-							0
Dimethylnaphthalene, 1,7-							0
Dimethylnaphthalene, 2,6-							0
Dimethyloctane, 2,6-							0
Dimethylpentane, 2,2-		CH3CH2CH2C(CH3)3	0		0		0
Dimethylpentane, 2,3-		CH3CH2CH(CH3)CH(CH3)2	0	0	0		0
Dimethylpentane, 2,4-		(CH3)2CHCH2CH(CH3)2	0	0	0		0

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Dimethylpentane, 3,3-		CH ₃ CH ₂ C(CH ₃) ₂ CH ₂ CH ₃	0		0		
Dimethylphenolxyenol, 3,5-	1,3-Dimethyl-5-hydroxyben	C ₈ H ₁₀ O				0	
Dimethylphenol, 2,4-	2,4-Dimethyl-1-hydroxyben	C ₈ H ₁₀ O				0	
Dimethylphenol, 2,6-		C ₈ H ₁₀ O				0	
Dimethylphenol, 3,4-	1,2-Dimethyl-4-hydroxyben	C ₈ H ₁₀ O				0	
Dimethylpropane, 2,2-	neopentane	C(CH ₃) ₄					0
Dimethyl-1-butene, 2,3-		C ₆ H ₁₂					0
Dimethyl-1-butene, 3,3-		C ₆ H ₁₂					0
Dimethyl-1-hexene, 2,3-		C ₈ H ₁₆					0
Dimethyl-1-pentene, 2,3-		C ₇ H ₁₄					0
Dimethyl-1-pentene, 2,4-		C ₇ H ₁₄					0
Dimethyl-1-pentene, 3,3-		C ₇ H ₁₄					0
Dimethyl-1-pentene, 4,4-		C ₇ H ₁₄					0
Dimethyl-2-butene, 2,3-		C ₆ H ₁₂					0
Dimethyl-2-ethylbenzene, 1,3-		C ₁₀ H ₁₄					0
Dimethyl-2-ethylbenzene, 1,4-		C ₁₀ H ₁₄					0
Dimethyl-2-hexene, 2,3-		C ₈ H ₁₆					0
Dimethyl-2-pentene, 2,3-		C ₇ H ₁₄					0
Dimethyl-2-pentene, 2,4-		C ₇ H ₁₄					0
Dimethyl-2-pentene, cis-3,4-		C ₇ H ₁₄					0
Dimethyl-2-pentene, cis-4,4-		C ₇ H ₁₄					0
Dimethyl-2-pentene, trans 3,4-		C ₇ H ₁₄					0
Dimethyl-2-pentene, trans 4,4-		C ₇ H ₁₄					0
Dimethyl-3-ethylbenzene, 1,2-							0
Dimethyl-3-ethylpentane, 2,2-		C ₉ H ₂₀					0
Dimethyl-3-ethylpentane, 2,4-		C ₉ H ₂₀					0
Dimethyl-4-ethylbenzene, 1,2-		C ₁₀ H ₁₄				0	
Dimethyl-4-ethylbenzene, 1,2-							0
Dimethyl-4-ethylbenzene, 1,3-		C ₁₀ H ₁₄					0
Dimethyl-5-ethylbenzene, 1,3-		C ₁₀ H ₁₄				0	0
Dimethyl-5-t-butylbenzene, 1,3-		C ₁₂ H ₁₈					0
Dimethyl-trans-3-hexene, 2,2-		C ₈ H ₁₆					0
Dimethyl-trans-3-hexene, 2,3-							0
Docosane, n-		CH ₃ (CH ₂) ₂₀ CH ₃					0
Dodecane, n-		CH ₃ (CH ₂) ₁₀ CH ₃					0
Eicosane, n-		CH ₃ (CH ₂) ₁₈ CH ₃					0

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Ethanol	Ethylalcohol	C2J2PJ				0	
Ethylbenzene		C8H10	0	0	0	0	
Ethylcyclohexane		C8H16					0
Ethylcyclopentane		C7H14	0		0	0	
Ethylcyclopentene, 3-		C7H12					0
Ethylheptane, 3-		C9H20					0
Ethylheptane, 4-		C9H20					0
Ethylhexane, 3-		CH3CH2CH2CH(CH2CH3)2			0	0	
Ethyl-naphthalene, 1-		C12H12				0	
Ethyl-naphthalene, 2-		C12H12				0	
Ethyl-octane, 4-		C10H22					0
Ethylpentane, 3-	Triethylmethane	CH3(CH2)3CH3	0		0	0	
Ethyl-1-hexene, 2-		C8H16					0
Ethyl-1-pentene, 2-		C7H14					0
Ethyl-1-pentene, 3-		C7H14					0
Ethyl-2-pentene, 3-		C7H14					0
Ethyl-3-hexene, 3-		C8H16					0
Ethyl-4-methylbenzene, 1-		C9H12				0	
Heneicosane, n-		CH3(CH2)19CH3				0	
Heptadecane, n-		CH3(CH2)15CH3				0	
Heptane, n-		CH3(CH2)5CH3	0		0	0	
Heptanoic Acid	Ethanoic acid	CH3(CH2)5CO2H				0	
Heptene, 1-		CH3(CH2)4CH:CH2					0
Heptene, cis-2-		C7H14					0
Heptene, cis-3-		C7H14					0
Heptene, trans-2-		C7H14					0
Heptene, trans-3-							0
Hexadecane, n-	Cetane	CH3(CH2)14CH3				0	
Hexane, n-	Dipropyl	CH3(CH2)4CH3	0	0	0	0	
Hexene, 1-	Butylethylene	CH3CH2CH2CH2CH:CH2	0		0	0	
Hexene, cis-2-		CH3CH2CH2CH:CHCH3			0		
Hexene, cis-3-		CH3CH2CH:CHCH2CH3			0	0	
Hexene, trans-2-		CH3CH2CH2CH:CHCH3				0	
Hexene, trans-3-		CH3CH2CH:CHCH2CH3			0	0	
Indanol							0
Isopropyltoluene	p-Cymene	C10H14				0	

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Isoquinoline		C9H7N				0	
Isopropylphenol, 2-						0	
Methanol	Methylalcohol	CH3OH				0	
Methylbenzene	Toluene	C7H8	0	0	0		
Methylbutane, 2-	Isopentane	(CH3)2CHCH2CH3			0		0
Methylcyclohexane	Hexahydrotoluene	C7H14	0	0	0		0
Methylcyclohexene, 1-		C7H12					0
Methylcyclohexene, 4-		C7H12					0
Methylcyclopentane	Methylpentamethylene	C6H12	0	0	0		0
Methylcyclopentene, 1-		C6H10					0
Methylcyclopentene, 3-		C6H10					0
Methylheptane, 2-		CH3(CH2)4CH(CH3)2	0		0		0
Methylheptane, 3-		CH3(CH2)3CH(CH3)CH2CH3	0		0		0
Methylheptane, 4-		(CH3CH2CH2)2CHCH3	0		0		0
Methylhexane, 2-	Isoheptane	CH3(CH2)3CH(CH3)2	0		0		0
Methylhexane, 3-		C7H16	0	0	0		0
Methylindan, 1-		C10H12					0
Methylindan, 2-		C10H12					0
Methylindan, 4-		C10H12					0
Methylindan, 5-		C10H12					0
Methylnaphthalene, 1-		C11H10				0	
Methylnaphthalene, 2-		C11H10				0	
Methylnonane, 2-		C10H22					0
Methylnonane, 3-		C10H22					0
Methylnonane, 4-		C10H22					0
Methylnonane, 5-		C10H22					0
Methyloctane, 2-		CH3(CH2)5CH(CH3)2		0	0		0
Methyloctane, 3-		CH3(CH2)4CH(CH3)CH2CH3		0			0
Methyloctane, 4-		CH3(CH2)3CH(CH3)CH2CH2CH3		0			0
Methylpentane, 2-		CH3CH2CH2CH(CH3)2	0	0	0		0
Methylpentane, 3-		(C2H5)2CHCH3	0	0	0		0
Methylpropane, 2-	Isobutane	C4H10	0				0
Methylpropene, 2-	Isobutylene	(CH3)2C:CH2					0
Methyl-1,3-butadiene, 2-		C5H8					0
Methyl-1-butene, 2-		CH3CH2C(CH3):CH2			0		0
Methyl-1-butene, 3-		(CH3)2CHCH:CH2					0

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Methyl-1-heptene, 2-		C8H16					0
Methyl-1-heptene, 6-		C8H16					0
Methyl-1-hexene, 2-		C7H14					0
Methyl-1-hexene, 3-		C7H14					0
Methyl-1-hexene, 4-		C7H14					0
Methyl-1-hexene, 5-		C7H14					0
Methyl-1-nonene, 2-		C10H20					0
Methyl-1-octene, 2-		C9H18					0
Methyl-1-pentene, 2-	1-Methyl-1-propylethene	CH3CH2CH2C(CH3):CH2		0	0		
Methyl-1-pentene, 3-		CH3CH2C(CH3)CH:CH2					0
Methyl-1-pentene, 4-		(CH3)2CHCH2CH:CH2					0
Methyl-2-butene, 2-	Amylene	(CH3)2C:CHCH3			0		0
Methyl-2-ethylbenzene, 1-		C9H12			0		0
Methyl-2-heptene, 2-		C8H16					0
Methyl-2-isopropylbenzene, 1-	O-Cymene	C10H14					0
Methyl-2-n-propylbenzene, 1-		C10H14					0
Methyl-2-octene, 2-		C9H18					0
Methyl-2-pentene, 2-		CH3CH2CH:C(CH3)2		0	0		
Methyl-2-pentene, 3-		CH3CH2C(CH3):CHCH3			0		
Methyl-2-pentene, cis-3-		CH3CH2C(CH3):CHCH3			0		
Methyl-2-pentene, trans-3-		CH3CH2C(CH3):CHCH3			0		
Methyl-3-ethylbenzene-		C9H12		0	0		0
Methyl-3-ethylhexane, 2-		C9H20					0
Methyl-3-Ethylpentane, 2-		C8H18					0
Methyl-3-isopropylbenzene, 1-							0
Methyl-3-isopropylbenzene, 1-	m-Cumene	C10H14					0
Methyl-3-n-propylbenzene, 1-		C10H14					0
Methyl-3-t-butylbenzene, 1-							0
Methyl-4-ethylbenzene, 1-		C9H12		0	0		0
Methyl-4-ethylhexane, 2-		C9H20					0
Methyl-4-n-propylbenzene, 1-		C10H14					0
Methyl-4-t-butylbenzene, 1-		C11H16					0
Methyl-cis-2-hexene, 3-		C7H14					0
Methyl-cis-2-hexene, 4-		C7H14					0
Methyl-cis-2-hexene, 5-		C7H14					0
Methyl-cis-3-hexene, 2-		C7H14					0

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Methyl-cis-3-hexene, 3-		C7H14					0
Methyl-trans-2-hexene, 3-		C7H14					0
Methyl-trans-2-hexene, 4-		C7H14					0
Methyl-trans-3-hexene, 2-		C7H14					0
Methyl-trans-3-hexene, 3-		C7H14					0
Naphthalene		C10H8				0	0
Nonadecane, n-		CH3(CH2)17CH3				0	
Nonane, n-		CH3(CH2)7CH3			0	0	0
Nonanoic Acid	Pelargonic Acid	CH3(CH2)7CO2H				0	
Nonene, 1-		C9H18					0
Octadecane, n-		CH3(CH2)16CH3				0	
Octane, n-		CH3(CH2)6CH3	0		0	0	0
Octanoic Acid	Caprylic acid	CH3(CH2)6CO2H				0	
Octene, 1-		CH3(CH2)5CH:CH2					0
Octene, cis-2-		C8H16					0
Octene, trans-2-		C8H16					0
Octene,trans-4-							0
Pentadecane, n-		CH3(CH2)13CH3				0	
Pentadiene, 1,4-		C5H8					0
Pentane, n-		CH3(CH2)3CH3	0	0	0	0	0
Pentene, 1-	Propylethlene	CH3CH2CH2CH:CH2	0	0	0		0
Pentene, cis-2-		CH3CH2CH:CHCH3	0	0	0		0
Pentene, trans-2-		CH3CH2CH:CHCH3	0	0	0		0
Pentylbenzene, iso-		C11H16					0
Pentylbenzene, n-		C11H16					0
Pentylcyclohexane, n-		C11H22					0
Pentylcyclopentane, n-		C10H20					0
Phenanthrene		C14H10				0	
Phenol		C6H6O				0	
Propane		C3H8	0				0
Propylbenzene, iso-	Cumene	C9H12			0	0	0
Propylbenzene, n-		C9H12			0		0
Propylcyclohexane, iso-	Hexahydrocumene	C9H18					0
Propylcyclopentane, n-		C8H16					0
Quinoline		C9H7N				0	
Tetracosane, n-		CH3(CH2)22CH3				0	

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Tetradecane, n-		CH ₃ (CH ₂) ₁₂ CH ₃					0
Tetrahydronaphthalene, 1,2,3,4-		C ₁₀ H ₁₂					0
Tetramethylbenzene, 1,2,3,4-		C ₁₀ H ₁₄					0
Tetramethylbenzene, 1,2,3,5-	Isodurene	C ₁₀ H ₁₄				0	0
Tetramethylbenzene, 1,2,4,5-	Durene	C ₁₀ H ₁₄				0	0
Tricosane, n-		CH ₃ (CH ₂) ₂₁ CH ₃					0
Tridecane, n-		CH ₃ (CH ₂) ₁₁ CH ₃					0
Trimethylbenzene, 1,2,3-		C ₉ H ₁₂			0		0
Trimethylbenzene, 1,2,4-	Pseudo cumene	C ₉ H ₁₂		0	0		0
Trimethylbenzene, 1,3,5-	Mesitylene	C ₉ H ₁₂			0		0
Trimethylbutane, 2,2,3-	Triptan	(CH ₃) ₂ CHC(CH ₃) ₃	0		0		0
Trimethylcyclohexane, 1,1,3-		C ₉ H ₁₈					0
Trimethylheptane, 2,2,4-		C ₈ H ₁₈					0
Trimethylheptane, 2,2,5-		C ₁₀ H ₂₂					0
Trimethylheptane, 2,2,6-		C ₁₀ H ₂₂					0
Trimethylheptane, 2,4,4-		C ₁₀ H ₂₂					0
Trimethylheptane, 2,4,5-							0
Trimethylheptane, 2,5,5-		C ₁₀ H ₂₂					0
Trimethylheptane, 3,3,4-		C ₁₀ H ₂₂					0
Trimethylheptane, 3,3,5-		C ₁₀ H ₂₂					0
Trimethylheptane, 3,4,4-		C ₁₀ H ₂₂					0
Trimethylheptane, 3,4,5-		C ₁₀ H ₂₂					0
Trimethylhexane, 2,2,3-		C ₉ H ₂₀					0
Trimethylhexane, 2,2,4-		C ₉ H ₂₀					0
Trimethylhexane, 2,2,5-		C ₉ H ₂₀					0
Trimethylhexane, 2,3,3-		C ₉ H ₂₀					0
Trimethylhexane, 2,3,5-		C ₉ H ₂₀					0
Trimethylhexane, 2,4,4-		C ₉ H ₂₀					0
Trimethylpentane, 2,2,3-		CH ₃ CH ₂ CH(CH ₃)C(CH ₃) ₃	0	0	0		0
Trimethylpentane, 2,2,4-	Iso-octane	(CH ₃) ₂ CHCH ₂ C(CH ₃) ₃	0	0	0		
Trimethylpentane, 2,2,5-			0	0	0		
Trimethylpentane, 2,3,3-		CH ₃ CH ₂ C(CH ₃) ₂ CH(CH ₃) ₂	0	0	0		0
Trimethylpentane, 2,3,4-		(CH ₃) ₂ CHCH(CH ₃)CH(CH ₃) ₂	0	0	0		0
Trimethylphenol, 2,3,6-							0
Trimethylphenol, 2,4,6-							0
Trimethyl-1-butene, 2,3,3-							0

NAME	SYNONYM	CHEMICAL FORMULA	1	2	3	4	5
Trimethyl-1-pentene, 2,4,4-		C ₈ H ₁₆					0
Trimethyl-2-pentene, 2,4,4-		C ₈ H ₁₆					0
Undecane, n-		CH ₃ (CH ₂) ₉ CH ₃			0	0	

C.2.2

ALPHABETICAL LISTING OF MOLECULAR WEIGHT,
DENSITY, BOILING POINT, MELTING POINT,
AND VAPOR PRESSURE

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Aniline	93.13	1.0220	185	-6.3	
Anthracene	178.24	1.283(25)	342	218	
Benzene	78.11	0.8786	80.1	5.5	76 mm 20 C
Benzoic Acid	122.13	1.3210	249.2	122.4	
Biphenyl	154.21	0.8660	255.9	71	
Butadiene, 1,3-			-4.4		
Butane, n-	58.12		-0.5		
Butene(trans), 2-	56.1	0.640(liq)	1	-105.8	760mm @ 0.9 C
Butene, 1-	56.1	0.670(liq)	-6.47	-130	760 mm @ -6.3 C
Butene, cis-2-			3.72		
Butene, trans-2-			0.88		
Butylbenzene, iso-			172.8		
Butylbenzene, n-	134.221	0.8604	183.1	-88.5	1 mm 23 C
Butylbenzene, sec-			173.3		
Butylbenzene, sec-					
Butylbenzene, t-			169.1		
Butylcyclohexane, iso-	140.27	0.7952	171.3	-94.85	
Butylcyclohexane, sec-	140.27	0.8131	179.34		
Cresol, m-	108.15	1.0340	202	11	
Cresol, o-	108.15	1.0470	190.95	30	
Cresol, p-	108.15	1.0341	201.8	35.5	
Cycloheptane			118.79		
Cyclohexane	84.16	0.7781	80.7	6.47	77mm @ 20 C
Cyclohexene			82.98		
Cyclopentane	70.14	0.7460	49.3	-94.4	
Cyclopentene			44.24		
Decane, n-	142.29	0.7300	174.1	-29.7	2.7mm @ 20 C
Decanoic Acid			270	31.4	
Decene, 1-	140.27	0.7408	170.56	-66.3	
Decene, cis-2-					
Decene, trans-2-					
Diethylbenzene, 1,2-	134.22	0.8800	183.4	-31.2	
Diethylbenzene, 1,3-					
Diethylbenzene, 1,4-					
Dihydroindene, 2,3-					
Dimethylbenzene, 1,2-	106.167	0.8801	144.4	-25	5 mm 20 C

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Dimethylbenzene, 1,3-	106.167	0.8684	139.1	-47.4	6 mm 20 C
Dimethylbenzene, 1,4-	106.167	0.8610	138.4	13	6.5 mm 20 C
Dimethylbutane, 2,2-	86.18	0.6492	49.741	-99.87	
Dimethylbutane, 2,3-	86.18	0.6616	57.988	-128.54	200mm @ 20 C
Dimethylcyclohexane, cis-1,2-	112.22	0.7963	129.73	-50.1	
Dimethylcyclohexane, cis-1,3-	112.22	0.7660	120.1	-75.57	
Dimethylcyclohexane, cis-1,4-	112.22	0.7829	124.32	-87.44	
Dimethylcyclohexane, trans 1,2-	112.22	0.7760	123.42	-89.2	
Dimethylcyclohexane, trans-1,3-	112.22	0.7847	124.45	-90.1	
Dimethylcyclohexane, trans-1,4-	112.22	0.7626	119.35	-37	
Dimethylcyclopentane, 1,1-			87.84		
Dimethylcyclopentane, cis-1,3-			90.77		
Dimethylcyclopentane, trans-1,3-			91.72		
Dimethylheptane, 2,2-					
Dimethylheptane, 2,3-					
Dimethylheptane, 2,4-					
Dimethylheptane, 2,5-					
Dimethylheptane, 2,6-			135.21		
Dimethylheptane, 3,3-					
Dimethylheptane, 3,4-					
Dimethylheptane, 3,5-					
Dimethylhexane, 2,2-	114.23	0.6953	106.84	-121.8	
Dimethylhexane, 2,3-	114.23	0.7121	115.6		
Dimethylhexane, 2,4-	114.23	0.696(30)	111		
Dimethylhexane, 2,5-	114.23	0.6935	109	-91.2	
Dimethylhexane, 3,3-	114.23	0.7100	112	-126.1	
Dimethylhexane, 3,4-	114.23	0.7200	117.72		
Dimethylnaphthalene, 1,2-					
Dimethylnaphthalene, 1,3-					
Dimethylnaphthalene, 1,4-					
Dimethylnaphthalene, 1,7-					
Dimethylnaphthalene, 2,6-					
Dimethyloctane, 2,6-					
Dimethylpentane, 2,2-	100.21	0.6739	79.197	-123.82	
Dimethylpentane, 2,3-	100.21	0.6951	89.8		
Dimethylpentane, 2,4-	100.21	0.6727	80.5	-119.24	

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Dimethylpentane, 3,3-	100.21	0.6936	86.064	-134.46	
Dimethylphenolxyenol, 3,5-	122.17	0.9680	219.5	68	
Dimethylphenol, 2,4-	122.17		211.5	25.4	
Dimethylphenol, 2,6-	122.17		203	49	
Dimethylphenol, 3,4-	122.17	0.9830	225	67	
Dimethylpropane, 2,2-	72.15	0.6135	9.5	-16.55	
Dimethyl-1-butene, 2,3-			55.62		
Dimethyl-1-butene, 3,3-			41.25		
Dimethyl-1-hexene, 2,3-					
Dimethyl-1-pentene, 2,3-					
Dimethyl-1-pentene, 2,4-					
Dimethyl-1-pentene, 3,3-					
Dimethyl-1-pentene, 4,4-			72.52		
Dimethyl-2-butene, 2,3-			73.2		
Dimethyl-2-ethylbenzene, 1,3-					
Dimethyl-2-ethylbenzene, 1,4-					
Dimethyl-2-hexene, 2,3-			121.77		
Dimethyl-2-pentene, 2,3-			97.4		
Dimethyl-2-pentene, 2,4-					
Dimethyl-2-pentene, cis-3,4-					
Dimethyl-2-pentene, cis-4,4-					
Dimethyl-2-pentene, trans 3,4-					
Dimethyl-2-pentene, trans 4,4-					
Dimethyl-3-ethylbenzene, 1,2-					
Dimethyl-3-ethylpentane, 2,2-			133.83		
Dimethyl-3-ethylpentane, 2,4-			136.69		
Dimethyl-4-ethylbenzene, 1,2-	134.22	0.8745	189.75	-67	
Dimethyl-4-ethylbenzene, 1,2-					
Dimethyl-4-ethylbenzene, 1,3-					
Dimethyl-5-ethylbenzene, 1,3-	134.221	0.8648	183.75	-84.33	
Dimethyl-5-t-butylbenzene, 1,3-					
Dimethyl-trans-3-hexene, 2,2-					
Dimethyl-trans-3-hexene, 2,3-					
Docosane, n-	310.61	0.7944	368.6	44.4	
Dodecane, n-	170.34	0.7487	216.3	-9.6	0.3mm @ 20 C
Eicosane, n-	282.5	0.7888		36.6	

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Ethanol	46.07	0.7890	78.7	-114.1	
Ethylbenzene	106.167	0.866(25)	136.3	-95	7 mm 20 C
Ethylcyclohexane	112.22	0.7880	131.78	-111.32	
Ethylcyclopentane	98.19	0.7665	103.5	-138.44	
Ethylcyclopentene, 3-					
Ethylheptane, 3-					
Ethylheptane, 4-					
Ethylhexane, 3-	114.23	0.7136	118.53		
Ethyl-naphthalene, 1-	156.23	1.0082	258.67	-13.88	
Ethyl-naphthalene, 2-	156.23	0.9922	257.9	-7.4	
Ethyl-octane, 4-					
Ethylpentane, 3-	100.21	0.6982	93.5	-118.6	
Ethyl-1-hexene, 2-					
Ethyl-1-pentene, 2-					
Ethyl-1-pentene, 3-					
Ethyl-2-pentene, 3-					
Ethyl-3-hexene, 3-					
Ethyl-4-methylbenzene, 1-	120.2				
Heneicosane, n-	296.59	0.7917	356.5	40.5	
Heptadecane, n-	240.48	0.7780	301.8	22	1mm @ 32.7 C
Heptane, n-	100.21	0.6838	98.42	-90.61	35mm @ 20 C
Heptanoic Acid	130.19	0.9181	223.01	-7.5	
Heptene, 1-	98.19	0.6970	93.64	-119	
Heptene, cis-2-			98.4		
Heptene, cis-3-			95.75		
Heptene, trans-2-			95.67		
Heptene, trans-3-					
Hexadecane, n-	226.45	0.7733	287	18.17	
Hexane, n-	86.18	0.6603	68.95	-95	
Hexene, 1-	84.16	0.6732	63.35	-139.82	
Hexene, cis-2-	84.16	0.6869	68.84	-141.35	
Hexene, cis-3-	84.16	0.6796	66.44	-137.82	
Hexene, trans-2-	84.16	0.6784	68	-133	
Hexene, trans-3-	84.16	0.6772	67.08	-113.43	
Indanol					
Isopropyltoluene	134.221	0.8573	177.1	-67.9	

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Isoquinoline	129.16	1.09(30)		26.48	
Isopropylphenol, 2-					
Methanol	32.04	0.7920	64.7	-93.9	
Methylbenzene	92.14	0.8660	110.6	-95	22 mm 20 C
Methylbutane, 2-	72.15	0.6201	27.852	-159.9	
Methylcyclohexane	98.19	0.7694	100.9	-126.59	144mm @ 20 C
Methylcyclohexene, 1-					
Methylcyclohexene, 4-			102.74		
Methylcyclopentane	84.16	0.7486	71.8	-142.4	
Methylcyclopentene, 1-					
Methylcyclopentene, 3-					
Methylheptane, 2-	114.23	0.6980	117.65	-109	
Methylheptane, 3-	114.23	0.7075	115.8		
Methylheptane, 4-	114.23	0.7046	117.7	-121	
Methylhexane, 2-	100.21	0.6786	90.052	-118.276	
Methylhexane, 3-	100.21	0.6870	91.85	-119	
Methylindan, 1-					
Methylindan, 2-					
Methylindan, 4-					
Methylindan, 5-					
Methylnaphthalene, 1-	142.2	1.0250	240.5	-22	
Methylnaphthalene, 2-	142.2	0.9940	241.5	34	
Methylnonane, 2-			167		
Methylnonane, 3-					
Methylnonane, 4-					
Methylnonane, 5-					
Methyloctane, 2-	128.26	0.7107	142.8	-80.1	
Methyloctane, 3-	128.26	0.7206	143.4	-107.6	
Methyloctane, 4-	128.26	0.7199	142.4	-113.2	
Methylpentane, 2-	86.18	0.6532	60.27	-153.7	400mm @ 40 C
Methylpentane, 3-	86.18	0.6643	63.28		
Methylpropane, 2-	58.12	0.5572	-11.73	-159.6	
Methylpropene, 2-	56.1		-6.9	-146.8	2.6 atm
Methyl-1,3-butadiene, 2-			34.07		
Methyl-1-butene, 2-	70.13	0.6500	31.4		
Methyl-1-butene, 3-	70.13	0.668(13)	38.4	-124	

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Methyl-1-heptene, 2-			119.28		
Methyl-1-heptene, 6-					
Methyl-1-hexene, 2-					
Methyl-1-hexene, 3-					
Methyl-1-hexene, 4-					
Methyl-1-hexene, 5-					
Methyl-1-nonene, 2-					
Methyl-1-octene, 2-					
Methyl-1-pentene, 2-	84.16	0.6799	60.7	-135.72	
Methyl-1-pentene, 3-	84.16	0.6675	51.14	-153	
Methyl-1-pentene, 4-	84.16	0.6642	53.88	-153.63	
Methyl-2-butene, 2-	70.14	0.660(15)	38	-133.77	
Methyl-2-ethylbenzene, 1-			165.2		
Methyl-2-heptene, 2-					
Methyl-2-isopropylbenzene, 1-			178.15		
Methyl-2-n-propylbenzene, 1-					
Methyl-2-octene, 2-					
Methyl-2-pentene, 2-	84.16	0.6863	67.29	-135.07	
Methyl-2-pentene, 3-	84.16	0.6986	70.45	-138.445	
Methyl-2-pentene, cis-3-	84.16	0.6986	67.7	-138.445	
Methyl-2-pentene, trans-3-	84.16	0.6942	67.63	-134.445	
Methyl-3-ethylbenzene-			161.3		
Methyl-3-ethylhexane, 2-					
Methyl-3-Ethylpentane, 2-	114.23	0.7193	115.65	-114.96	
Methyl-3-isopropylbenzene, 1-					
Methyl-3-isopropylbenzene, 1-			175.05		
Methyl-3-n-propylbenzene, 1-					
Methyl-3-t-butylbenzene, 1-					
Methyl-4-ethylbenzene, 1-			162		
Methyl-4-ethylhexane, 2-					
Methyl-4-n-propylbenzene, 1-					
Methyl-4-t-butylbenzene, 1-					
Methyl-cis-2-hexene, 3-					
Methyl-cis-2-hexene, 4-					
Methyl-cis-2-hexene, 5-					
Methyl-cis-3-hexene, 2-					

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Methyl-cis-3-hexene, 3-					
Methyl-trans-2-hexene, 3-					
Methyl-trans-2-hexene, 4-					
Methyl-trans-3-hexene, 2-					
Methyl-trans-3-hexene, 3-					
Naphthalene	128.19	1.0253	217.9	80.2	1 mm @ 53 C
Nonadecane, n-	268.53	0.7855	329.7	32.1	
Nonane, n-	128.26	0.7176	150.798	-51	3.22mm @ 20 C
Nonanoic Acid	158.24	0.9070	252	12.5	
Nonene, 1-			146.87		
Octadecane, n-	254.51	0.7768	316.1	28.18	
Octane, n-	114.23	0.7025	125.6	-56.8	11mm @ 20 C
Octanoic Acid	144.22	0.9100	239.7	16.7	
Octene, 1-	112.22	0.7149	121.3	-101.73	
Octene, cis-2-			125.6		
Octene, trans-2-			125		
Octene,trans-4-					
Pentadecane, n-	212.42	0.7683	270.63	10	
Pentadiene, 1,4-			25.97		
Pentane, n-	72.15	0.6262	36.074	-129.7	
Pentene, 1-	70.13	0.6429	30.1	-138	400 mm 12.8 C
Pentene, cis-2-	70.13	0.6503	37	-179	
Pentene, trans-2-	70.13	0.6482	35.85	-136	
Pentylbenzene, iso-					
Pentylbenzene, n-	148.25	0.8585	205.4	-75	
Pentylcyclohexane, n-					
Pentylcyclopentane, n-					
Phenanthrene	178.24	1.0250	340	100	
Phenol	94.11	1.0710	182	43	
Propane	44.11		-42.07	-188	
Propylbenzene, iso-	120.2		152.7	-96	3.2 mm 20 C
Propylbenzene, n-	120.2	0.8621	159.2	-99.2	12.5 mm 20 C
Propylcyclohexane, iso-	126.24	0.8023	154.5	-89.8	
Propylcyclopentane, n-	112.22	0.7763	130.95	-117.3	
Quinoline	129.16	1.0929	238.05	-15.6	
Tetracosane, n-	338.67	0.7991	391.3	54	

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Tetradecane, n-	198.4	0.7628	253.7	5.86	1mm @ 76 C
Tetrahydronaphthalene, 1,2,3,4-					
Tetramethylbenzene, 1,2,3,4-					
Tetramethylbenzene, 1,2,3,5-	134.22	0.8906	197.9	-24	1 mm @ 40.6 C
Tetramethylbenzene, 1,2,4,5-	134.22	0.8400	192	80	
Tricosane, n-	324.64	0.7785(48)	380.2	47.6	
Tridecane, n-	184.37	0.7564	235.4	-5.5	
Trimethylbenzene, 1,2,3-	120.2	0.8900	176	-15	
Trimethylbenzene, 1,2,4-	120.2	0.8761	169	-61	
Trimethylbenzene, 1,3,5-	120.2	0.8637	164.7	-44.8	
Trimethylbutane, 2,2,3-	100.21	0.6901	80.88	-24.19	
Trimethylcyclohexane, 1,1,3-			136.62		
Trimethylheptane, 2,2,4-			113.47		
Trimethylheptane, 2,2,5-					
Trimethylheptane, 2,2,6-			148.93		
Trimethylheptane, 2,4,4-					
Trimethylheptane, 2,4,5-					
Trimethylheptane, 2,5,5-					
Trimethylheptane, 3,3,4-					
Trimethylheptane, 3,3,5-					
Trimethylheptane, 3,4,4-					
Trimethylheptane, 3,4,5-					
Trimethylhexane, 2,2,3-					
Trimethylhexane, 2,2,4-			103.65		
Trimethylhexane, 2,2,5-			124.08		
Trimethylhexane, 2,3,3-			137.68		
Trimethylhexane, 2,3,5-			131.34		
Trimethylhexane, 2,4,4-					
Trimethylpentane, 2,2,3-	114.23	0.7161	109.841	-112.27	
Trimethylpentane, 2,2,4-	114.23	0.6919	99.3	-107.45	
Trimethylpentane, 2,2,5-					
Trimethylpentane, 2,3,3-	114.23	0.7262	114.76	-100.7	
Trimethylpentane, 2,3,4-	114.23	0.7191	113.467	-109.21	
Trimethylphenol, 2,3,6-					
Trimethylphenol, 2,4,6-					
Trimethyl-1-butene, 2,3,3-					

NAME	MW	DENSITY (gm/cc)	B.P. (C)	M.P. (C)	VAPOR PRESSURE (mm Hg)
Trimethyl-1-pentene, 2,4,4-			101.44		
Trimethyl-2-pentene, 2,4,4-			104.9		
Undecane, n-	156.32	0.7402	195.9	-25.59	1mm @ 32.7 C

C.2.3

ALPHABETICAL LISTING OF
SOLUBILITY IN WATER AND CHEMICAL CLASS

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Aniline	34,965		AA
Anthracene	0.075 @15 C		A
Benzene	1780		A
Benzoic Acid	2900		CA
Biphenyl	7.5 @ 25 C		A
Butadiene, 1,3-	735	A	CD
Butane, n-	61.4	A	P
Butene(trans), 2-	430	C	O
Butene, 1-	222	A	O
Butene, cis-2-	430	C	O
Butene, trans-2-	430	C	O
Butylbenzene, iso-	10.1	A	A
Butylbenzene, n-	11.8	B	A
Butylbenzene, sec-	17.6	B	A
Butylbenzene, sec-			A
Butylbenzene, t-	29.5	B	A
Butylcyclohexane, iso-	0.10	D	N
Butylcyclohexane, sec-	0.10	D	N
Cresol, m-	25,850		Ph&C
Cresol, o-	26,175		Ph&C
Cresol, p-	25,000 @ 50 C		Ph&C
Cycloheptane	30	C	N
Cyclohexane	66.5	B	N
Cyclohexene	213	B	CO
Cyclopentane	160	B	N
Cyclopentene	535	B	CO
Decane, n-	0.022	E	P
Decanoic Acid	150		CA
Decene, 1-	0.10	B	O
Decene, cis-2-	0.09	A	N
Decene, trans-2-	0.09	A	O
Diethylbenzene, 1,2-	ins		A
Diethylbenzene, 1,3-	6.8	D	A
Diethylbenzene, 1,4-	6.8	D	A
Dihydroindene, 2,3-			A
Dimethylbenzene, 1,2-	175		5 A

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Dimethylbenzene, 1,3-	162	B	A
Dimethylbenzene, 1,4-	198 @25 C		A
Dimethylbutane, 2,2-	18.4	A	P
Dimethylbutane, 2,3-	22.5	B	P
Dimethylcyclohexane, cis-1,2-	6	C	N
Dimethylcyclohexane, cis-1,3-	3.73	B	N
Dimethylcyclohexane, cis-1,4-	3.73	B	N
Dimethylcyclohexane, trans 1,2-	3.73	B	N
Dimethylcyclohexane, trans-1,3-	3.73	B	N
Dimethylcyclohexane, trans-1,4-	3.84	A	N
Dimethylcyclopentane, 1,1-	7.07	B	N
Dimethylcyclopentane, cis-1,3-	7.07	B	N
Dimethylcyclopentane, trans-1,3-	7.07	B	N
Dimethylheptane, 2,2-			P
Dimethylheptane, 2,3-	0.32	A	P
Dimethylheptane, 2,4-	0.32	A	P
Dimethylheptane, 2,5-	0.32	A	P
Dimethylheptane, 2,6-	0.32	A	P
Dimethylheptane, 3,3-	0.32	A	P
Dimethylheptane, 3,4-	0.32	A	P
Dimethylheptane, 3,5-	0.32	A	P
Dimethylhexane, 2,2-	1.45	A	P
Dimethylhexane, 2,3-	1.45	B	P
Dimethylhexane, 2,4-	1.45	A	P
Dimethylhexane, 2,5-	1.45	A	P
Dimethylhexane, 3,3-	1.45	A	P
Dimethylhexane, 3,4-	1.45	B	P
Dimethylnaphthalene, 1,2-			A
Dimethylnaphthalene, 1,3-			A
Dimethylnaphthalene, 1,4-			A
Dimethylnaphthalene, 1,7-			A
Dimethylnaphthalene, 2,6-			A
Dimethyloctane, 2,6-			P
Dimethylpentane, 2,2-	4.4	C	P
Dimethylpentane, 2,3-	5.25	A	P
Dimethylpentane, 2,4-	4.06	A	P

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Dimethylpentane, 3,3-	5.94	A	P
Dimethylphenolxyenol, 3,5-	s		PH&C
Dimethylphenol, 2,4-	s sol		Ph&C
Dimethylphenol, 2,6-	s sol		Ph&C
Dimethylphenol, 3,4-	s sol		Ph&C
Dimethylpropane, 2,2-	33.2	A	P
Dimethyl-1-butene, 2,3-	not found		O
Dimethyl-1-butene, 3,3-	not found		O
Dimethyl-1-hexene, 2,3-	not found		O
Dimethyl-1-pentene, 2,3-	not found		O
Dimethyl-1-pentene, 2,4-	not found		O
Dimethyl-1-pentene, 3,3-	not found		O
Dimethyl-1-pentene, 4,4-	not found		O
Dimethyl-2-butene, 2,3-	not found		O
Dimethyl-2-ethylbenzene, 1,3-	not found		A
Dimethyl-2-ethylbenzene, 1,4-	not found		A
Dimethyl-2-hexene, 2,3-	not found		O
Dimethyl-2-pentene, 2,3-	not found		O
Dimethyl-2-pentene, 2,4-	not found		O
Dimethyl-2-pentene, cis-3,4-	not found		O
Dimethyl-2-pentene, cis-4,4-	not found		O
Dimethyl-2-pentene, trans 3,4-	not found		O
Dimethyl-2-pentene, trans 4,4-	not found		O
Dimethyl-3-ethylbenzene, 1,2-			A
Dimethyl-3-ethylpentane, 2,2-	1.42	B	P
Dimethyl-3-ethylpentane, 2,4-	1.42	B	P
Dimethyl-4-ethylbenzene, 1,2-	not found		A
Dimethyl-4-ethylbenzene, 1,2-			A
Dimethyl-4-ethylbenzene, 1,3-	not found		A
Dimethyl-5-ethylbenzene, 1,3-	not found		A
Dimethyl-5-t-butylbenzene, 1,3-	not found		A
Dimethyl-trans-3-hexene, 2,2-	not found		O
Dimethyl-trans-3-hexene, 2,3-			O
Docosane, n-	ins		P
Dodecane, n-	0.008	F	P
Eicosane, n-			P

NAME	SOL.IN WATER (mg/l)	REF.	CHEM. CLASS
Ethanol	mis		A1
Ethylbenzene	152	A	A
Ethylcyclohexane	3.29	D	N
Ethylcyclopentane	245 @71 C	C	N
Ethylcyclopentene, 3-	64	A	C0
Ethylheptane, 3-	1.42	A	P
Ethylheptane, 4-	1.42	A	P
Ethylhexane, 3-	1.45	A	P
Ethyl-naphthalene, 1-	ins		A
Ethyl-naphthalene, 2-	ins		A
Ethyl-octane, 4-	0.022	A	P
Ethylpentane, 3-	3.22	B	P
Ethyl-1-hexene, 2-	3.1	A	O
Ethyl-1-pentene, 2-	14	A	O
Ethyl-1-pentene, 3-	14	A	O
Ethyl-2-pentene, 3-	14	A	O
Ethyl-3-hexene, 3-	3.1	A	O
Ethyl-4-methylbenzene, 1-			A
Heneicosane, n-	ins		P
Heptadecane, n-	ins		P
Heptane, n-	2.93	A	P
Heptanoic Acid	2420 @15 C		CA
Heptene, 1-	14.1	B	O
Heptene, cis-2-	15	A	O
Heptene, cis-3-	15.2	A	O
Heptene, trans-2-	15.2	A	O
Heptene, trans-3-			O
Hexadecane, n-	0.0009 @25 C		P
Hexane, n-	9.5	A	P
Hexene, 1-	50	A	O
Hexene, cis-2-	55.9	B	O
Hexene, cis-3-	55.9	B	O
Hexene, trans-2-	55.9	B	O
Hexene, trans-3-	ins		O
Indanol			
Isopropyltoluene	prac ins		A

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Isoquinoline	prac ins		AA
Isopropylphenol, 2-			PH&C
Methanol	mis		A1
Methylbenzene	515		A
Methylbutane, 2-	ins		P
Methylcyclohexane	14	A	N
Methylcyclohexene, 1-	52	B	CO
Methylcyclohexene, 4-	64	A	CO
Methylcyclopentane	ins		N
Methylcyclopentene, 1-	212	A	CO
Methylcyclopentene, 3-	212	A	CO
Methylheptane, 2-	0.85	A	P
Methylheptane, 3-	ins		P
Methylheptane, 4-	0.85	A	P
Methylhexane, 2-	2.54	A	P
Methylhexane, 3-	2.64	A	P
Methylindan, 1-	not found		A
Methylindan, 2-	not found		A
Methylindan, 4-	not found		A
Methylindan, 5-	not found		A
Methylnaphthalene, 1-	ins		A
Methylnaphthalene, 2-	ins		A
Methylnonane, 2-	0.022	A	P
Methylnonane, 3-	0.022	A	P
Methylnonane, 4-	0.022	A	P
Methylnonane, 5-	0.022	A	P
Methyloctane, 2-	1.42	A	P
Methyloctane, 3-	1.42	A	P
Methyloctane, 4-	0.115	B	P
Methylpentane, 2-	13.8	A	P
Methylpentane, 3-	12.8	A	P
Methylpropane, 2-	48.9	A	P
Methylpropene, 2-	2.33 mg/m3		O
Methyl-1,3-butadiene, 2-	642	A	CD
Methyl-1-butene, 2-			O
Methyl-1-butene, 3-	130	B	O

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Methyl-1-heptene, 2-	3.1	A	0
Methyl-1-heptene, 6-	3.1	A	0
Methyl-1-hexene, 2-	14	3	0
Methyl-1-hexene, 3-	14	A	0
Methyl-1-hexene, 4-	14	A	0
Methyl-1-hexene, 5-	14	A	0
Methyl-1-nonene, 2-	0.09	A	0
Methyl-1-octene, 2-	0.6	A	0
Methyl-1-pentene, 2-	78	B	0
Methyl-1-pentene, 3-	56	A	0
Methyl-1-pentene, 4-	48	B	0
Methyl-2-butene, 2-	155	A	0
Methyl-2-ethylbenzene, 1-	40	G	A
Methyl-2-heptene, 2-	3.1	A	0
Methyl-2-isopropylbenzene, 1-	81	C	A
Methyl-2-n-propylbenzene, 1-	6.8	D	A
Methyl-2-octene, 2-	0.6	A	0
Methyl-2-pentene, 2-	ins		0
Methyl-2-pentene, 3-	ins		0
Methyl-2-pentene, cis-3-	56	A	0
Methyl-2-pentene, trans-3-	56	A	0
Methyl-3-ethylbenzene-	40	G	A
Methyl-3-ethylhexane, 2-	0.32	A	P
Methyl-3-Ethylpentane, 2-	1.45	B	P
Methyl-3-isopropylbenzene, 1-			A
Methyl-3-isopropylbenzene, 1-	89	C	A
Methyl-3-n-propylbenzene, 1-	6.8	D	A
Methyl-3-t-butylbenzene, 1-			A
Methyl-4-ethylbenzene, 1-	40	G	A
Methyl-4-ethylhexane, 2-	0.32	A	P
Methyl-4-n-propylbenzene, 1-	6.8	D	A
Methyl-4-t-butylbenzene, 1-	not found		A
Methyl-cis-2-hexene, 3-	14	A	0
Methyl-cis-2-hexene, 4-	14	3	0
Methyl-cis-2-hexene, 5-	14	A	0
Methyl-cis-3-hexene, 2-	14	A	0

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Methyl-cis-3-hexene, 3-	14	A	O
Methyl-trans-2-hexene, 3-	14	A	O
Methyl-trans-2-hexene, 4-	14	A	O
Methyl-trans-3-hexene, 2-	14	A	O
Methyl-trans-3-hexene, 3-	14	A	O
Naphthalene	31.3	A	A
Nonadecane, n-	ins		P
Nonane, n-	0.122	C	P
Nonanoic Acid	prac ins		CA
Nonene, 1-	0.63	B	O
Octadecane, n-	0.007 @25 C		P
Octane, n-	0.66	A	P
Octanoic Acid	680		CA
Octene, 1-	2.7	A	O
Octene, cis-2-	3.4	A	O
Octene, trans-2-	3.4	A	O
Octene,trans-4-			O
Pentadecane, n-	ins		P
Pentadiene, 1,4-	558	A	CD
Pentane, n-	38.5	A	P
Pentene, 1-	148	A	O
Pentene, cis-2-	203	A	O
Pentene, trans-2-	203	A	O
Pentylbenzene, iso-			A
Pentylbenzene, n-	not found		A
Pentylcyclohexane, n-	not found		N
Pentylcyclopentane, n-	0.115	B	N
Phenanthrene	1.6 @15 C		A
Phenol	66,667		Ph&C
Propane	62.4	A	P
Propylbenzene, iso-	50	A	A
Propylbenzene, n-	55	F	A
Propylcyclohexane, iso-	0.65	D	N
Propylcyclopentane, n-	2.04	B	N
Quinoline	sol		AA
Tetracosane, n-	ins		P

NAME	SOL.IN WATER (mg/l)	REF.	CHEM. CLASS
Tetradecane, n-	0.0022		P
Tetrahydronaphthalene, 1,2,3,4-	not found		A
Tetramethylbenzene, 1,2,3,4-	ins		A
Tetramethylbenzene, 1,2,3,5-	not found		A
Tetramethylbenzene, 1,2,4,5-	3.48	A	A
Tricosane, n-	ins		P
Tridecane, n-	0.013 @25 C		P
Trimethylbenzene, 1,2,3-	75.2	B	A
Trimethylbenzene, 1,2,4-	57		A
Trimethylbenzene, 1,3,5-	20		A
Trimethylbutane, 2,2,3-	2.59	B	P
Trimethylcyclohexane, 1,1,3-	1.77	A	N
Trimethylheptane, 2,2,4-	1.36	A	P
Trimethylheptane, 2,2,5-	0.79	A	P
Trimethylheptane, 2,2,6-	0.79	A	P
Trimethylheptane, 2,4,4-	0.79	A	P
Trimethylheptane, 2,4,5-			P
Trimethylheptane, 2,5,5-	0.79	A	P
Trimethylheptane, 3,3,4-	0.79	A	P
Trimethylheptane, 3,3,5-	0.79	A	P
Trimethylheptane, 3,4,4-	0.79	A	P
Trimethylheptane, 3,4,5-	0.79	A	P
Trimethylhexane, 2,2,3-	1.42	A	P
Trimethylhexane, 2,2,4-	1.42	A	P
Trimethylhexane, 2,2,5-	1.15	B	P
Trimethylhexane, 2,3,3-	1.42	A	P
Trimethylhexane, 2,3,5-	1.42	A	P
Trimethylhexane, 2,4,4-	1.42	A	P
Trimethylpentane, 2,2,3-	2.59	B	P
Trimethylpentane, 2,2,4-	1.14	A	P
Trimethylpentane, 2,2,5-			P
Trimethylpentane, 2,3,3-	2.59	B	P
Trimethylpentane, 2,3,4-	1.36	A	P
Trimethylphenol, 2,3,6-			Ph&C
Trimethylphenol, 2,4,6-			Ph&C
Trimethyl-1-butene, 2,3,3-			O

NAME	SOL. IN WATER (mg/l)	REF.	CHEM. CLASS
Trimethyl-1-pentene, 2,4,4-	not found		O
Trimethyl-2-pentene, 2,4,4-	not found		O
Undecane, n-	not found		P

Appendix D

APPENDIX D

RESULTS OF PARAMETRIC SORTS

D.1

INTRODUCTION

The results of the parametric sorts discussed in Volume 1, Section 5 are presented herein.

Four parameters were sorted/grouped individually and in various combination as follows:

Individual Parameter Sorts: Toxicity
 Solubility
 Vapor Pressure
 Ignitability

Dual Parameter Sorts: Toxicity-Solubility
 Toxicity-Vapor Pressure
 Ignitability-Vapor Pressure

The resulting lists of chemicals which follow are associated with the above groups. Solubility and vapor pressure groups are presented individually. The individual groups for RQ-toxicity and RQ-ignitability may be easily read in the dual-parametric sort lists.

D.2

SOLUBILITY GROUPINGS

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Acetone cyanohydrin	H
Acetic Acid	H
Acetic anhydride	H
Acrylamide	H
Acrylic acid	H
Aldicarb	H
Aluminum sulfate	H
Aminopyridine, 4-	H
Ammonium acetate	H
Ammonium bisulfite	H
Ammonium carbamate	H
Ammonium fluoride	H
Ammonium hydroxide	H
Ammonium oxalate	H
Ammonium silicofluoride	H
Ammonium sulfamate	H
Ammonium thiocyanate	H
Ammonium thiosulfate	H
Arsenic acid	H
Arsenic (V) oxide	H
Azaserine	H
Aziridine	H
Benzenamine	H
Benzonitrile	H
Bioxirane, 2,2'-	H
Bis(2-chloroethyl) ether	H
Bis(chloromethyl) ether	H
Butanol, 1-	H
Butanone, 2-	H
Butenal, 2-	H
Butyl acetate	H
Butylamine	H
Butylamine, sec-	H
Butylamine, sec-	H
Butylamine, tert-	H
Butyric acid	H
Cacodylic acid	H
Chloroacetaldehyde	H
Chloroaniline, p-	H
Chloropropionitrile, 3-	H
Chloro-2,3-epoxypropane, 1-	H
Chlorpyrifos	H
Chromous chloride	H
Cobaltous bromide	H
Cobaltous formate	H
Cobaltous sulfamate	H
Creosote	H
Cupric chloride	H
Cupric sulfate	H
Cyclohexadienedione, 1,4-	H
Cyclophosphamide	H
Diaminotoluene	H
Dichlobenil	H

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Dichlorobenzene, m-	H
Dichloropropane, 1,2-	H
Dichloropropionic acid, 2,2-	H
Dichlorvos	H
Diethylamine	H
Dimethyl sulfate	H
Dinitrophenol, 2,4-	H
Dipropylamine	H
Diuron	H
Di-n-propylnitrosamine	H
Dodecylbenzenesulfonic acid	H
Ethanal	H
Ethanenitrile	H
Ethanethioamide	H
Ethyl acetate	H
Ethyl acrylate	H
Ethyl carbamate (Urethane)	H
Ethyl ether	H
Ethyl methacrylate	H
Ethylenediamine	H
Ferric dextran	H
Ferric Nitrate	H
Ferrous chloride	H
Ferrous sulfate	H
Ferrous sulfate	H
Fluoroacetamide	H
Formaldehyde (Solution) Note 1	H
Furancarboxaldehyde, 2-	H
Glycidylaldehyde	H
Hydrochloric acid (Solution) Note 1	H
Hydrofluoric acid	H
Imidazolidinethione, 2-	H
Isophorone	H
iso-butyl alcohol	H
iso-Butylamine	H
Maleic Acid	H
Methacrylonitrile	H
Methanoic acid	H
Methomyl	H
Methyl alcohol	H
Methyl iodide	H
Methyl methacrylate	H
Methylaziridine, 2-	H
Methylene chloride	H
Mevinphos	H
Mitomycin C	H
Monoethylamine	H
Nickel chloride	H
Nickel sulfate	H
Nicotine and salts	H
Nitric acid	H
Nitrophenol, m-	H
Nitrophenol, p-	H

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Nitropropane, 2-	H
Nitrosodiethylamine, N-	H
Nitrosodimethylamine, N-	H
Nitrosomethylvinylamine, N-	H
Nitrosopiperidine, N-	H
Nitroso-N-ethylurea, N-	H
Nitroso-N-methylurea, N-	H
N-Nitrosopyrrolidine	H
Octamethyldiphosphoramidate	H
Phenol	H
Phosphoric acid	H
Picoline, 2-	H
Potassium bichromate	H
Potassium hydroxide	H
Potassium permanganate	H
Propane sultone, 1,3-	H
Propanone, 2-	H
Propenal, 2-	H
Propen-1-ol, 2-	H
Propionic acid	H
Propylamine, n-	H
Propylene oxide	H
Propyn-1-ol, 2-	H
Pyridine	H
Quinoline	H
Resorcinol	H
Silver nitrate	H
Silvex	H
Sodium arsenite	H
Sodium azide	H
Sodium bisulfite	H
Sodium chromate	H
Sodium fluoride	H
Sodium hydrosulfide	H
Sodium hydroxide	H
Sodium hypochlorite	H
Sodium nitrite	H
Sodium phosphate, dibasic	H
Sodium phosphate, tribasic	H
Streptozotocin	H
Sulfuric Acid	H
Sulfuric acid	H
Tetrachloroethylene	H
Tetraethyl pyrophosphate	H
Tetrahydrofuran	H
Thiourea	H
Triazol-3-amine, 1H-1,2,4-	H
Trichlorfon	H
Trypan Blue	H
Vanadyl sulfate	H
Vinyl Acetate	H
Zinc chloride	H
Zinc sulfate	H

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Acenaphthene	L
Acetylaminofluorene, 2-	L
Aldrin	L
Amyl acetate, tert-	L
Anthracene	L
Antimony	L
Arsenic	L
Asbestos	L
Auramine	L
Benzenthio1	L
Benzopyrene, 3,4-	L
Benzo(b)fluoranthene	L
Benzo(j,k)fluorene	L
Benzo[ghi]perylene	L
Benzo[phenanthrene, 1,2-	L
Benzyl chloride	L
Benz(a)anthracene	L
Beryllium	L
Bis(2-ethylhexyl)phthalate	L
Bis(dimethylthiocarbamoyl)disulfide	L
Butanone peroxide, 2-	L
Butyl acetate, tert-	L
Butyl benzyl phthalate	L
Cadmium	L
Captan	L
Carbaryl	L
Chlorambucil	L
Chlordane	L
Chlorodibromomethane	L
Chloroethyl vinyl ether, 2-	L
Chloronaphthalene, 2-	L
Chlorophenol, 2-	L
Chromium	L
Copper	L
Coumaphos	L
Cresol-o	L
Cresol-p	L
Cumene	L
Cyclohexane	L
Cyclohexanone	L
Diazinon	L
Dibenzo[a,h]anthracene	L
Dichlone	L
Dichloro diphenyl trichloroethane	L
Dichlorobenzidine, 3,3'-	L
Dichlorobromomethane	L
Dichlorodiphenyl dichloroethane	L
Dichloropropane	L
Dichloropropane, 1,3-	L
Dichloropropene(s)	L
Dichloropropene, 1,3-	L
Dieldrin	L
Diethyl phthalate	L

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Diethylstilbestrol	L
Dihydrosafrole	L
Dimethoxybenzidine, 3,3'-	L
Dimethylaminoazobenzene	L
Dimethylcarbamoyl chloride	L
Dinitrobenzene, o-	L
Dinitrobenzene, p-	L
Dinitrotoluene, 3,4-	L
Dinitro-o-cresol, 4,6-	L
Disulfoton	L
Di-n-octyl phthalate	L
Endosulfan	L
Endrin	L
Furan	L
Guthion	L
Heptachlor	L
Hexachlorobenzene	L
Hexachlorobutadiene	L
Hexachloroethane	L
Indeno(1,2,3-cd)pyrene	L
Isoprene	L
Isosafrole	L
Kelthane	L
Lead	L
Lindane	L
Melphalan	L
Mercaptodimethur	L
Mercury	L
Methoxychlor	L
Methyl parathion	L
Methylbutadiene, 1-	L
Mexacarbate	L
Naled	L
Naphthenic acid	L
Naphthylthiourea, alpha-	L
Nickel	L
Nickel hydroxide	L
Parathion	L
Pentachloronitrobenzene	L
Pentachlorophenol	L
Phenanthrene	L
Phorate	L
Phosphorus	L
Pronamide	L
Propargite	L
Pyrene	L
Pyrethrins	L
Pyrethrins	L
Safrole	L
Selenium	L
Silver	L
Silver cyanide	L
Tetraethyl lead	L

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Thallium	L
Toluene diisocyanate	L
Toxaphene	L
Trichlorobenzene, 1,2,4-	L
Trichlorophenol	L
Trichlorophenol, 2,3,4-	L
Trichlorophenol, 2,3,5-	L
Trichlorophenol, 2,3,6-	L
Warfarin	L
Xylene	L
Xylene, m-	L
Xylene, o-	L
Xylene, p-	L
Zinc	L
Acetophenone	M
Allyl chloride	M
Ammonium chloride	M
Ammonium fluoborate	M
Ammonium sulfite	M
Ammonium vanadate	M
Amyl acetate	M
Amyl acetate, iso-	M
Amyl acetate, sec-	M
Antimony trichloride	M
Antimony trioxide	M
Benzene	M
Benzidine	M
Benzoic Acid	M
Bis(2-chloroisopropyl) ether	M
Bromoform	M
Butyl acetate, sec-	M
Carbofuran	M
Carbon disulfide	M
Carbon tetrachloride	M
Chlornaphazine	M
Chlorobenzene	M
Chloroform	M
Dibromo-3-chloropropane, 1,2-	M
Dibutyl phthalate	M
Dicamba	M
Dichlorobenzene, o-	M
Dichloroethane, 1,1-	M
Dichloroethane, 1,2-	M
Dichloroethylene, 1,1-	M
Dichlorophenol, 2,4-	M
Dichloropropane, 1,1-	M
Dichloropropene, 2,3-	M
Dimethoate	M
Dimethyl phthalate	M
Dimethylbenzidine, 3,3'-	M
Dinitrobenzene (mixed)	M
Dinitrobenzene, m-	M
Dinitrophenol, 2,5-	M

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Dinitrophenol, 2,6-	M
Dinitrotoluene	M
Dinitrotoluene, 2,4-	M
Dinitrotoluene, 2,6-	M
Dinoseb	M
EDTA	M
Ethion	M
Ethyl 4,4'-dichlorobenzilate	M
Ethylbenzene	M
Ethylene dibromide	M
Ferric chloride	M
Fumaric Acid	M
Kepone	M
Lasiocarpine	M
Lead sulfate	M
Malathion	M
Methyl chloroform	M
Methylenebis(2-chloroaniline), 4,4'-	M
Methylthiouracil	M
Methyl-2-pentanone, 4-	M
Naphthylamine, 1-	M
Naphthylamine, beta-	M
Nitroaniline, p-	M
Nitrobenzene	M
Nitrophenol (mixed)	M
Nitrophenol, o-	M
Nitrosodiphenylamine, N-	M
Nitroso-N-methylurethane, N-	M
Nitrotoluene, m-	M
Nitrotoluene, o-	M
Nitrotoluene, p-	M
N-Nitrosodi-n-butylamine	M
Osmium oxide	M
Paraformaldehyde	M
Phenacetin	M
Phenylmercuric acetate	M
Phthalic anhydride	M
Propenenitrile, 2-	M
Sodium bichromate	M
Strychnine and salts	M
Styrene	M
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	M
Tetrachloroethane, 1,1,2,2-	M
Toluene	M
Trichloroethane, 1,1,2-	M
Trichloroethylene	M
Trichloromonofluoromethane	M
Trichlorophenol, 2,4,5-	M
Trichlorophenol, 2,4,6-	M
Trichlorophenol, 3,4,5-	M
Triethylamine	M
T, 2,4,5-	M
Uracil Mustard	M

SOLUBILITY GROUPINGS

NAME	SOLUBILITY GROUP
Vanadium (V) oxide	M
Xylenol	M
Zirconium potassium fluoride	M

D.3

VAPOR PRESSURE GROUPINGS

VAPOR PRESSURE GROUPINGS

NAME	VAPOR GROUP
Ammonium hydroxide	H
Butanone peroxide, 2-	H
Butylamine, sec-	H
Chlorodibromomethane	H
Dichlorobromomethane	H
Dichloroethylene-trans, 1,2-	H
Diethylamine	H
Dipropylamine	H
Formaldehyde (Solution) Note 1	H
Furan	H
Hydrochloric acid (Solution) Note 1	H
Phosphorus trichloride	H
Triethylamine	H
Amyl acetate, tert-	L
Bioxirane, 2,2'-	L
Chlorosulfonic acid	L
Dichlorobenzene (mixed)	L
Dimethyl sulfate	L
Di-n-octyl phthalate	L
Malathion	L
Nitrotoluene	L
Sulfur monochloride	L
Sulfuric Acid	L
Tetraethyl lead	L
Butyl acetate, iso-	M
Butyl acetate, tert-	M
Dichloropropane	M
Dichloropropane, 1,1-	M
Dichloropropane, 1,3-	M
Dichloropropane-Dichloropropene-MIX	M
Xylene	M
Xylene, o-	M
Xylene, p-	M
Benzo[ghi]perylene	L
Diazinon	L
Sulfuric acid	L
Mercury	L
Mevinphos	L
Parathion	L
Dichlorvos	L
Nicotine and salts	L
Dibutyl phthalate	L
Nitrotoluene, o-	L
Nitrobenzene	L
Nitrotoluene, m-	L
Isophorone	L
Benzenamine	L
Benzoyl chloride	L
Bis(2-chloroethyl) ether	L
Dibromo-3-chloropropane, 1,2-	L
Trichloromonofluoromethane	L
Acetophenone	L
Benzenthionol	L
Benzonitrile	L

NAME	VAPOR PRESSURE GROUPINGS	VAPOR GROUP
Benzyl chloride		L
Butyric acid		L
Dichlorobenzene, m-		L
Furancarboxaldehyde, 2-		L
Propylamine, n-		L
Quinoline		L
Safrole		L
Bis(2-ethylhexyl)phthalate		L
Acetone cyanohydrin		L
Dichlorobenzene, o-		L
Disulfoton		L
Cumene		L
Acetic anhydride		L
Acrylic acid		L
Amyl acetate		L
Cyclohexanone		L
Butanol, 1-		L
Styrene		L
Tetrachloroethane, 1,1,2,2-		L
Bromoform		L
Amyl acetate, iso-		L
Chloropropionitrile, 3-		L
Amyl acetate, sec-		L
Ethylbenzene		L
Chlorobenzene		L
Xylene, m-		L
Acetic Acid		L
Butyl acetate		L
Butyl acetate, sec-		L
Ethylenediamine		L
iso-butyl alcohol		L
Picoline, 2-		L
Propionic acid		L
Ethylene dibromide		M
Propyn-1-ol, 2-		M
Nitropropane, 2-		M
Chloro-2,3-epoxypropane, 1-		M
Diethyl phthalate		M
Ethyl methacrylate		M
Methyl-2-pentanone, 4-		M
Tetrachloroethylene		M
Propen-1-ol, 2-		M
Pyridine		M
Trichloroethane, 1,1,2-		M
Hexachlorobutadiene		M
Toluene		M
Propanone, 2-		M
Chloroethyl vinyl ether, 2-		M
Dichloropropene(s)		M
Dichloropropene, 1,3-		M
Phosphorus oxychloride		M
Ethyl acrylate		M
Bis(chloromethyl)ether		M
Butenal, 2-		M

VAPOR PRESSURE GROUPINGS

NAME	VAPOR GROUP
Dimethylcarbamoyl chloride	M
Methanoic acid	M
Methyl methacrylate	M
Dichloropropane, 1,2-	M
Methacrylonitrile	M
Methylene bromide	M
Dichloropropene, 2,3-	M
Trichloroethylene	M
Dichloroethane, 1,2-	M
Nitric acid	M
Butylamine, sec-	M
Ethyl acetate	M
Ethanenitrile	M
Benzene	M
Cyclohexane	M
Butanone, 2-	M
Butylamine	M
Propenenitrile, 2-	M
Vinyl Acetate	M
Carbon tetrachloride	M
Butylamine, tert-	H
Chloroacetaldehyde	H
iso-Butylamine	H
Methyl alcohol	H
Methyl chloroform	H
Tetrahydrofuran	H
Aziridine	H
Chloroform	H
Dichloroethane, 1,1-	H
Propenal, 2-	H
Allyl chloride	H
Carbon disulfide	H
Methylene chloride	H
Methyl iodide	H
Methylbutadiene, 1-	H
Ethyl ether	H
Propylene oxide	H
Isoprene	H
Bis(2-chloroisopropyl) ether	H
Dichloroethylene, 1,1-	H
Ethanal	H
Monoethylamine	H

D.4

TOXICITY-SOLUBILITY SORT: RESULTING GROUPS

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Acetone cyanohydrin	A	F	H
Dichlorvos	A	F	H
Dinitrophenol, 2,4-	A	F	H
Dinitro-o-cresol, 4,6-	A	F	L
Naled	A	F	L
Coumaphos	A	F	L
Propargite	A	F	L
Kelthane	A	F	L
Mercaptodimethur	A	F	L
Bis(dimethylthiocarbamoyl)disulfide	A	F	L
Dibutyl phthalate	A	F	M
Dinitrophenol, 2,6-	A	F	M
Malathion	A	F	M
Carbofuran	A	F	M
Strychnine and salts	A	F	M
Dinitrophenol, 2,5-	A	F	M
Dimethoate	A	F	M
Cyclohexadienedione, 1,4-	A	P	H
Cupric sulfate	A	P	H
Tetraethyl pyrophosphate	A	P	H
Cupric chloride	A	P	H
Captan	A	P	L
Tetraethyl lead	A	P	L
Ethion	A	P	M
Trichlorophenol, 2,3,6-	A	S	L
Pentachlorophenol	A	S	L
Trichlorophenol, 2,3,5-	A	S	L
Trichlorophenol, 2,4,6-	A	S	M
Trichlorophenol, 2,4,5-	A	S	M
Trichlorophenol, 3,4,5-	A	S	M
Nitrophenol, m-	B	F	H
Diuron	B	F	H
Octamethyldiphosphoramidate	B	F	H
Propen-1-ol, 2-	B	F	H
Potassium permanganate	B	F	H

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Silvex	B	F	H
Methomyl	B	F	H
Dichlorobenzene, m-	B	F	H
Fluoroacetamide	B	F	H
Dichlobenil	B	F	H
Nitrophenol, p-	B	F	H
Butenal, 2-	B	F	H
Hydrofluoric acid	B	F	H
Nicotine and salts	B	F	H
Ferrous chloride	B	F	H
Sodium hypochlorite	B	F	H
Chlorodibromomethane	B	F	L
Carbaryl	B	F	L
Naphthenic acid	B	F	L
Benzenthionol	B	F	L
Trichlorobenzene, 1,2,4-	B	F	L
Chlorophenol, 2-	B	F	L
Furan	B	F	L
Dinitrobenzene, o-	B	F	L
Butyl benzyl phthalate	B	F	L
Dinitrobenzene, p-	B	F	L
Warfarin	B	F	L
Toluene diisocyanate	B	F	L
Disulfoton	B	F	L
Naphthylthiourea, alpha-	B	F	L
Dichlorophenol, 2,4-	B	F	M
Dinitrobenzene, m-	B	F	M
Nitrophenol (mixed)	B	F	M
Dinitrobenzene (mixed)	B	F	M
Nitrophenol, o-	B	F	M
Bromoform	B	F	M
Nitrosodiphenylamine, N-	B	F	M
Dichlorobenzene, o-	B	F	M
Phenol	B	P	H
Sodium nitrite	B	P	H

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Pyridine	B	P	H
Trichlorfon	B	P	H
Diethylamine	B	P	H
Dichloropropene, 1,3-	B	P	L
Benzo(j,k)fluorene	B	P	L
Cresol-o	B	P	L
Acenaphthene	B	P	L
Phorate	B	P	L
Dichloropropene(s)	B	P	L
Methyl parathion	B	P	L
Selenium	B	P	L
Cresol-p	B	P	L
Dichloropropene, 2,3-	B	P	M
Lead sulfate	B	P	M
Carbon disulfide	B	P	M
Phenylmercuric acetate	B	P	M
Arsenic (V) oxide	B	S	H
Benzyl chloride	B	S	L
Dinitrotoluene, 3,4-	B	S	L
Dinitrotoluene, 2,6-	B	S	M
Propenenitrile, 2-	B	S	M
Dinitrotoluene, 2,4-	B	S	M
Benzene	B	S	M
Dinitrotoluene	B	S	M
Methyl methacrylate	C	F	H
Ethanal	C	F	H
Potassium hydroxide	C	F	H
Sodium hydroxide	C	F	H
Butylamine, sec-	C	F	H
Chloroacetaldehyde	C	F	H
Dodecylbenzenesulfonic acid	C	F	H
Benzonitrile	C	F	H
Aminopyridine, 4-	C	F	H
iso-Butylamine	C	F	H
Cobaltous bromide	C	F	H

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Ammonium silicofluoride	C	F	H
Butylamine	C	F	H
Furancarboxaldehyde, 2-	C	F	H
Vinyl Acetate	C	F	H
Chloropropionitrile, 3-	C	F	H
Propylamine, n-	C	F	H
Ferrous sulfate	C	F	H
Cobaltous formate	C	F	H
Butylamine, sec-	C	F	H
Propyn-1-ol, 2-	C	F	H
Ammonium fluoride	C	F	H
Cobaltous sulfamate	C	F	H
Methylene chloride	C	F	H
Quinoline	C	F	H
Methacrylonitrile	C	F	H
Resorcinol	C	F	H
Butylamine, tert-	C	F	H
Sulfuric acid	C	F	H
Ammonium hydroxide	C	F	H
Butyl acetate	C	F	H
Acetic Acid	C	F	H
Sulfuric Acid	C	F	H
Ethylenediamine	C	F	H
Sodium azide	C	F	H
Nitric acid	C	F	H
Acetic anhydride	C	F	H
Ferrous sulfate	C	F	H
Butanone,2-	C	F	H
Benzenamine	C	F	H
Ferric Nitrate	C	F	H
Chloroaniline, p-	C	F	H
Sodium fluoride	C	F	H
Diethyl phthalate	C	F	L
Amyl acetate, tert-	C	F	L
Xylene, o-	C	F	L

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Methylbutadiene, 1-	C	F	L
Silver	C	F	L
Xylene	C	F	L
Guthion	C	F	L
Xylene, m-	C	F	L
Butanone peroxide, 2-	C	F	L
Mexacarbate	C	F	L
Chloroethyl vinyl ether, 2-	C	F	L
Cyclohexane	C	F	L
Butyl acetate, tert-	C	F	L
Xylene, p-	C	F	L
Nitrotoluene, o-	C	F	M
Chlorobenzene	C	F	M
Nitrotoluene, m-	C	F	M
Paraformaldehyde	C	F	M
Acetate, iso-	C	F	M
Osmium oxide	C	F	M
Ethylbenzene	C	F	M
Nitrotoluene, p-	C	F	M
Antimony trioxide	C	F	M
Ferric chloride	C	F	M
Xylenol	C	F	M
T, 2,4,5-	C	F	M
Styrene	C	F	M
Dinoseb	C	F	M
Allyl chloride	C	F	M
Amyl acetate	C	F	M
Antimony trichloride	C	F	M
Methyl chloroform	C	F	M
Butyl acetate, sec-	C	F	M
Nitrobenzene	C	F	M
Toluene	C	F	M
Amyl acetate, sec-	C	F	M
Ammonium vanadate	C	F	M
Triethylamine	C	F	M

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Dichloroethane, 1,1-	C	F	M
Bis(2-chloroisopropyl) ether	C	F	M
Dicamba	C	F	M
Zirconium potassium fluoride	C	F	M
Vanadyl sulfate	C	P	H
Monoethylamine	C	P	H
Chromous chloride	C	P	H
Zinc chloride	C	P	H
Zinc sulfate	C	P	H
Isoprene	C	P	L
Zinc	C	P	L
Thallium	C	P	L
Vanadium (V) oxide	C	P	M
Sodium arsenite	C	S	H
Sodium chromate	C	S	H
Formaldehyde (Solution) Note 1	C	S	H
Chloro-2,3-epoxypropane, 1-	C	S	H
Potassium bichromate	C	S	H
Nickel hydroxide	C	S	L
Heptachlor	C	S	L
Carbon tetrachloride	C	S	M
Sodium bichromate	C	S	M
Ethylene dibromide	C	S	M
Chloroform	C	S	M
Dichloroethylene, 1,1-	C	S	M
Trichloroethylene	C	S	M
Ethyl acetate	D	F	H
Dichloropropionic acid, 2,2-	D	F	H
Ammonium sulfamate	D	F	H
Isophorone	D	F	H
Sodium bisulfite	D	F	H
Ammonium oxalate	D	F	H
Sodium phosphate, dibasic	D	F	H
Hydrochloric acid (Solution) Note 1	D	F	H
Sodium hydrosulfide	D	F	H

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Sodium phosphate, tribasic	D	F	H
Ethyl methacrylate	D	F	H
Dipropylamine	D	F	H
Maleic Acid	D	F	H
Aluminum sulfate	D	F	H
Ammonium acetate	D	F	H
Phosphoric acid	D	F	H
Methyl alcohol	D	F	H
Butanol, 1-	D	F	H
Ethanenitrile	D	F	H
Picoline, 2-	D	F	H
Acrylic acid	D	F	H
Tetrahydrofuran	D	F	H
Ethyl ether	D	F	H
Ammonium carbamate	D	F	H
Methanoic acid	D	F	H
Propanone, 2-	D	F	H
iso-butyl alcohol	D	F	H
Dichloropropane, 1,2-	D	F	H
Ammonium thiocyanate	D	F	H
Propylene oxide	D	F	H
Ethyl acrylate	D	F	H
Acrylamide	D	F	H
Butyric acid	D	F	H
Ammonium bisulfite	D	F	H
Ammonium thiosulfate	D	F	H
Propionic acid	D	F	H
Dichlorobromomethane	D	F	L
Di-n-octyl phthalate	D	F	L
Pronamide	D	F	L
Cyclohexanone	D	F	L
Dichloropropane	D	F	L
Chloronaphthalene, 2-	D	F	L
Dichloropropane, 1,3-	D	F	L
Cumene	D	F	L

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Acetophenone	D	F	M
Ammonium fluoborate	D	F	M
Fumaric Acid	D	F	M
Benzoic Acid	D	F	M
Methyl-2-pentanone, 4-	D	F	M
Trichloromonofluoromethane	D	F	M
Dimethyl phthalate	D	F	M
Nitroaniline, p-	D	F	M
Dichloropropane, 1,1-	D	F	M
Phthalic anhydride	D	F	M
Ammonium sulfite	D	F	M
EDTA	D	F	M
Ammonium chloride	D	F	M
Ferric dextran	D	P	H
Pyrene	D	P	L
Phenanthrene	D	P	L
Copper	D	P	L
Benzo[ghi]perylene	D	P	L
Anthracene	D	P	L
Antimony	D	P	L
Lead	D	P	L
Nickel sulfate	D	S	H
Nickel chloride	D	S	H
Dichloroethane, 1,2-	D	S	M
Silver nitrate	X	F	H
Mevinphos	X	F	H
Propenal, 2-	X	F	H
Chlorpyrifos	X	F	H
Aldicarb	X	F	H
Diazinon	X	F	L
Endosulfan	X	F	L
Phosphorus	X	F	L
Endrin	X	F	L
Methoxychlor	X	F	L
Pyrethrins	X	F	L

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Silver cyanide	X	F	L
Mercury	X	F	L
Dichlone	X	F	L
Pyrethrins	X	F	L
Nitrosodiethylamine, N-	X	S	H
Cyclophosphamide	X	S	H
Triazol-3-amine, 1H-1,2,4-	X	S	H
Dimethyl sulfate	X	S	H
N-Nitrosopyrrolidine	X	S	H
Methylaziridine, 2-	X	S	H
Creosote	X	S	H
Arsenic acid	X	S	H
Nitroso-N-methylurea, N-	X	S	H
Glycidylaldehyde	X	S	H
Methyl iodide	X	S	H
Cacodylic acid	X	S	H
Nitrosodimethylamine, N-	X	S	H
Ethanethioamide	X	S	H
Nitrosomethylvinylamine, N-	X	S	H
Trypan Blue	X	S	H
Ethyl carbamate (Urethane)	X	S	H
Tetrachloroethylene	X	S	H
Azaserine	X	S	H
Bis(chloromethyl)ether	X	S	H
Bioxirane, 2,2'-	X	S	H
Diaminotoluene	X	S	H
Thiourea	X	S	H
Nitropropane, 2-	X	S	H
Nitroso-N-ethylurea, N-	X	S	H
Bis(2-chloroethyl) ether	X	S	H
Mitomycin C	X	S	H
Streptozotocin	X	S	H
Di-n-propylnitrosamine	X	S	H
Aziridine	X	S	H
Imidazolidinethione, 2-	X	S	H

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Propane sultone, 1,3-	X	S	H
Nitrosopiperidine, N-	X	S	H
Dibenzo[a,h]anthracene	X	S	L
Acetylaminofluorene, 2-	X	S	L
Aldrin	X	S	L
Arsenic	X	S	L
Hexachlorobenzene	X	S	L
Dichlorobenzidine, 3,3'-	X	S	L
Bis(2-ethylhexyl)phthalate	X	S	L
Dichlorodiphenyl dichloroethane	X	S	L
Beryllium	X	S	L
Chromium	X	S	L
Hexachlorobutadiene	X	S	L
Diethylstilbestrol	X	S	L
Benz(a)anthracene	X	S	L
Dimethoxybenzidine, 3,3'-	X	S	L
Hexachloroethane	X	S	L
Chlorambucil	X	S	L
Benzphenanthrene, 1,2-	X	S	L
Dimethylcarbonyl chloride	X	S	L
Indeno(1,2,3-cd)pyrene	X	S	L
Cadmium	X	S	L
Isosafrole	X	S	L
Dichloro diphenyl trichloroethane	X	S	L
Lindane	X	S	L
Dieldrin	X	S	L
Benzo(b)fluoranthene	X	S	L
Dihydrosafrole	X	S	L
Benzo(p)pyrene, 3,4-	X	S	L
Dimethylaminoazobenzene	X	S	L
Toxaphene	X	S	L
Safrole	X	S	L
Auramine	X	S	L
Parathion	X	S	L
Asbestos	X	S	L

TOXICITY - SOLUBILITY SORT: RESULTING GROUPS

NAME	RQ - TOXICITY	RQ - STATUS	SOLUBILITY
Nickel	X	S	L
Chlordane	X	S	L
Pentachloronitrobenzene	X	S	L
Melphalan	X	S	L
Ethyl 4,4'-dichlorobenzilate	X	S	M
Methylthiouracil	X	S	M
Methylenebis(2-chloroaniline), 4,4'-	X	S	M
N-Nitrosodi-n-butylamine	X	S	M
Lasiocarpine	X	S	M
Tetrachloroethane, 1,1,2,2-	X	S	M
Kepone	X	S	M
Trichloroethane, 1,1,2-	X	S	M
Dimethylbenzidine, 3,3'-	X	S	M
Naphthylamine, 1-	X	S	M
Uracil Mustard	X	S	M
Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	X	S	M
Dibromo-3-chloropropane, 1,2-	X	S	M
Naphthylamine, beta-	X	S	M
Nitroso-N-methylurethane, N-	X	S	M
Phenacetin	X	S	M
Chlornaphazine	X	S	M
Benzidine	X	S	M

D.5

TOXICITY-VAPOR PRESSURE SORT: RESULTING GROUPS

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP
Malathion	A	F	L
Dibutyl phthalate	A	F	L
Dichlorvos	A	F	L
Acetone cyanohydrin	A	F	L
Tetraethyl lead	A	P	L
Furan	B	F	H
Dichlorobenzene (mixed)	B	F	L
Chlorodibromomethane	B	F	H
Nicotine and salts	B	F	L
Dichlorobenzene, m-	B	F	L
Dichlorobenzene, o-	B	F	L
Disulfoton	B	F	L
Bromoform	B	F	L
Benzenthion	B	F	L
Butenal, 2-	B	F	M
Propen-1-ol, 2-	B	F	M
Diethylamine	B	P	H
Dichloropropane-Dichloropropene-MIX	B	P	M
Carbon disulfide	B	P	H
Dichloropropene, 1,3-	B	P	M
Pyridine	B	P	M
Dichloropropene, 2,3-	B	P	M
Dichloropropene(s)	B	P	M
Benzyl chloride	B	S	L
Propenenitrile, 2-	B	S	M
Benzene	B	S	M
Butyl acetate, tert-	C	F	M
Chlorosulfonic acid	C	F	L
Sulfuric Acid	C	F	L
Sulfur monochloride	C	F	L
Ammonium hydroxide	C	F	H
Nitrotoluene	C	F	L
Xylene	C	F	M
Butylamine, sec-	C	D-28 F	H
Xylene, p-	C	F	M

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP
Dichloroethylene-trans, 1,2-	C	F	H
Triethylamine	C	F	H
Phosphorus trichloride	C	F	H
Xylene, o-	C	F	M
Butyl acetate, iso-	C	F	M
Butanone peroxide, 2-	C	F	H
Amyl acetate, tert-	C	F	L
Methyl chloroform	C	F	H
Ethanal	C	F	H
iso-Butylamine	C	F	H
Dichloroethane, 1,1-	C	F	H
Methylbutadiene, 1-	C	F	H
Butylamine, tert-	C	F	H
Allyl chloride	C	F	H
Bis(2-chloroisopropyl) ether	C	F	H
Methylene chloride	C	F	H
Chloroacetaldehyde	C	F	H
Amyl acetate, iso-	C	F	L
Benzoyl chloride	C	F	L
Benzenamine	C	F	L
Benzonitrile	C	F	L
Butyl acetate	C	F	L
Nitrotoluene, o-	C	F	L
Acetic anhydride	C	F	L
Furancarboxaldehyde, 2-	C	F	L
Acetic Acid	C	F	L
Quinoline	C	F	L
Amyl acetate	C	F	L
Ethylenediamine	C	F	L
Xylene, m-	C	F	L
Chloropropionitrile, 3-	C	F	L
Chlorobenzene	C	F	L
Nitrobenzene	C	F	L
Styrene	C	F	L
Nitrotoluene, m-	C	F	L

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP
Ethylbenzene	C	F	L
Sulfuric acid	C	F	L
Butyl acetate, sec-	C	F	L
Propylamine, n-	C	F	L
Amyl acetate, sec-	C	F	L
Chloroethyl vinyl ether, 2-	C	F	M
Methacrylonitrile	C	F	M
Methylene bromide	C	F	M
Diethyl phthalate	C	F	M
Vinyl Acetate	C	F	M
Butylamine, sec-	C	F	M
Phosphorus oxychloride	C	F	M
Toluene	C	F	M
Butanone, 2-	C	F	M
Nitric acid	C	F	M
Butylamine	C	F	M
Propyn-1-ol, 2-	C	F	M
Cyclohexane	C	F	M
Methyl methacrylate	C	F	M
Monoethylamine	C	P	H
Isoprene	C	P	H
Formaldehyde (Solution) Note 1	C	S	H
Chloroform	C	S	H
Dichloroethylene, 1,1-	C	S	H
Ethylene dibromide	C	S	M
Trichloroethylene	C	S	M
Carbon tetrachloride	C	S	M
Chloro-2,3-epoxypropane, 1-	C	S	M
Hydrochloric acid (Solution) Note 1	D	F	H
Dipropylamine	D	F	H
Dichloropropane, 1,3-	D	F	M
Di-n-octyl phthalate	D	F	L
Dichloropropane	D	F	M
Dichloropropane, 1,1-	D	F	M
Acetyl bromide	D	D-30 F	H

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP
Dichlorobromomethane	D	F	H
Tetrahydrofuran	D	F	H
Methyl alcohol	D	F	H
Ethyl ether	D	F	H
Propylene oxide	D	F	H
Isophorone	D	F	L
Acetophenone	D	F	L
Trichloromonofluoromethane	D	F	L
Cumene	D	F	L
Butanol, 1-	D	F	L
Butyric acid	D	F	L
iso-butyl alcohol	D	F	L
Propionic acid	D	F	L
Acrylic acid	D	F	L
Picoline, 2-	D	F	L
Cyclohexanone	D	F	L
Ethyl methacrylate	D	F	M
Propanone, 2-	D	F	M
Ethanenitrile	D	F	M
Ethyl acrylate	D	F	M
Methanoic acid	D	F	M
Dichloropropane, 1,2-	D	F	M
Ethyl acetate	D	F	M
Methyl-2-pentanone, 4-	D	F	M
Benzo[ghi]perylene	D	P	L
Dichloroethane, 1,2-	D	S	M
Propenal, 2-	X	F	H
Diazinon	X	F	L
Mevinphos	X	F	L
Mercury	X	F	L
Bioxirane, 2,2'-	X	S	L
Dimethyl sulfate	X	S	L
Methyl iodide	X	S	L
Aziridine	X	S	H
Dibromo-3-chloropropane, 1,2-	X	S	L

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP
Bis(2-ethylhexyl)phthalate	X	S	L
Bis(2-chloroethyl) ether	X	S	L
Safrole	X	S	L
Tetrachloroethane, 1,1,2,2-	X	S	L
Parathion	X	S	L
Tetrachloroethylene	X	S	M
Bis(chloromethyl)ether	X	S	M
Hexachlorobutadiene	X	S	M
Nitropropane, 2-	X	S	M
Trichloroethane, 1,1,2-	X	S	M
Dimethylcarbamoyl chloride	X	S	M
Malathion	A	F	L
Dibutyl phthalate	A	F	L
Dichlorvos	A	F	L
Acetone cyanohydrin	A	F	L
Tetraethyl lead	A	P	L
Furan	B	F	H
Dichlorobenzene (mixed)	B	F	L
Chlorodibromomethane	B	F	H
Nicotine and salts	B	F	L
Dichlorobenzene, m-	B	F	L
Dichlorobenzene, o-	B	F	L
Disulfoton	B	F	L
Bromoform	B	F	L
Benzenthionol	B	F	L
Butenal, 2-	B	F	M
Propen-1-ol, 2-	B	F	M
Diethylamine	B	P	H
Dichloropropane-Dichloropropene-MIX	B	P	M
Carbon disulfide	B	P	H
Dichloropropene, 1,3-	B	P	M
Pyridine	B	P	M
Dichloropropene, 2,3-	B	P	M
Dichloropropene(s)	B	P	M
Benzyl chloride	B	S	L
Propenenitrile, 2-	B	D-32 S	M

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP	
Benzene	B		S	M
Butyl acetate, tert-	C		F	M
Chlorosulfonic acid	C		F	L
Sulfuric Acid	C		F	L
Sulfur monochloride	C		F	L
Ammonium hydroxide	C		F	H
Nitrotoluene	C		F	L
Xylene	C		F	M
Butylamine, sec-	C		F	H
Xylene, p-	C		F	M
Dichloroethylene-trans, 1,2-	C		F	H
Triethylamine	C		F	H
Phosphorus trichloride	C		F	H
Xylene, o-	C		F	M
Butyl acetate, iso-	C		F	M
Butanone peroxide, 2-	C		F	H
Amyl acetate, tert-	C		F	L
Methyl chloroform	C		F	H
Ethanal	C		F	H
iso-Butylamine	C		F	H
Dichloroethane, 1,1-	C		F	H
Methylbutadiene, 1-	C		F	H
Butylamine, tert-	C		F	H
Allyl chloride	C		F	H
Bis(2-chloroisopropyl) ether	C		F	H
Methylene chloride	C		F	H
Chloroacetaldehyde	C		F	H
Amyl acetate, iso-	C		F	L
Benzoyl chloride	C		F	L
Benzenamine	C		F	L
Benzonitrile	C		F	L
Butyl acetate	C		F	L
Nitrotoluene, o-	C		F	L
Acetic anhydride	C		F	L
Furancarboxaldehyde, 2-	C	D-33	F	L

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP	
Acetic Acid	C		F	L
Quinoline	C		F	L
Amyl acetate	C		F	L
Ethylenediamine	C		F	L
Xylene, m-	C		F	L
Chloropropionitrile, 3-	C		F	L
Chlorobenzene	C		F	L
Nitrobenzene	C		F	L
Styrene	C		F	L
Nitrotoluene, m-	C		F	L
Ethylbenzene	C		F	L
Sulfuric acid	C		F	L
Butyl acetate, sec-	C		F	L
Propylamine, n-	C		F	L
Amyl acetate, sec-	C		F	L
Chloroethyl vinyl ether, 2-	C		F	M
Methacrylonitrile	C		F	M
Methylene bromide	C		F	M
Diethyl phthalate	C		F	M
Vinyl Acetate	C		F	M
Butylamine, sec-	C		F	M
Phosphorus oxychloride	C		F	M
Toluene	C		F	M
Butanone, 2-	C		F	M
Nitric acid	C		F	M
Butylamine	C		F	M
Propyn-1-ol, 2-	C		F	M
Cyclohexane	C		F	M
Methyl methacrylate	C		F	M
Monoethylamine	C		P	H
Isoprene	C		P	H
Formaldehyde (Solution) Note 1	C		S	H
Chloroform	C		S	H
Dichloroethylene, 1,1-	C		S	H
Ethylene dibromide	C	U-34	S	M

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP	
Trichloroethylene	C		S	M
Carbon tetrachloride	C		S	M
Chloro-2,3-epoxypropane, 1-	C		S	M
Hydrochloric acid (Solution) Note 1	D		F	H
Dipropylamine	D		F	H
Dichloropropane, 1,3-	D		F	M
Di-n-octyl phthalate	D		F	L
Dichloropropane	D		F	M
Dichloropropane, 1,1-	D		F	M
Acetyl bromide	D		F	H
Dichlorobromomethane	D		F	H
Tetrahydrofuran	D		F	H
Methyl alcohol	D		F	H
Ethyl ether	D		F	H
Propylene oxide	D		F	H
Isophorone	D		F	L
Acetophenone	D		F	L
Trichloromonofluoromethane	D		F	L
Cumene	D		F	L
Butanol, 1-	D		F	L
Butyric acid	D		F	L
iso-butyl alcohol	D		F	L
Propionic acid	D		F	L
Acrylic acid	D		F	L
Picoline, 2-	D		F	L
Cyclohexanone	D		F	L
Ethyl methacrylate	D		F	M
Propanone, 2-	D		F	M
Ethanenitrile	D		F	M
Ethyl acrylate	D		F	M
Methanoic acid	D		F	M
Dichloropropane, 1,2-	D		F	M
Ethyl acetate	D		F	M
Methyl-2-pentanone, 4-	D		F	M
Ben zo[ghi]perylene	D	D-35	P	L

TOXICITY - VAPOR PRESSURE SORT: RESULTING GROUPS

NAME	RQ TOXICITY	RQ STATUS	VAP.PRESS. GROUP	
Dichloroethane, 1,2-	D		S	M
Propenal, 2-	X		F	H
Diazinon	X		F	L
Mevinphos	X		F	L
Mercury	X		F	L
Bioxirane, 2,2'-	X		S	L
Dimethyl sulfate	X		S	L
Methyl iodide	X		S	L
Aziridine	X		S	H
Dibromo-3-chloropropane, 1,2-	X		S	L
Bis(2-ethylhexyl)phthalate	X		S	L
Bis(2-chloroethyl) ether	X		S	L
Safrole	X		S	L
Tetrachloroethane, 1,1,2,2-	X		S	L
Parathion	X		S	L
Tetrachloroethylene	X		S	M
Bis(chloromethyl)ether	X		S	M
Hexachlorobutadiene	X		S	M
Nitropropane, 2-	X		S	M
Trichloroethane, 1,1,2-	X		S	M
Dimethylcarbamoyl chloride	X		S	M

D.6

IGNITABILITY-VAPOR PRESSURE SORT: RESULTING GROUPS

IGNITABILITY - VAPOR PRESSURE SORTS: RESULTING GROUPS

NAME	RQ IGNITABILITY	VAPOR PRESSURE GROUP
Dichlororoethylene, 1,1-	B	H
Ethanal	B	H
Ethyl ether	B	H
Formaldehyde (Solution) Note 1	B	H
Furan	B	H
Isoprene	B	H
Methylbutadiene, 1-	B	H
Monoethylamine	B	H
Propylene oxide	B	H
Allyl chloride	C	H
Butylamine, sec-	C	H
Butylamine, tert-	C	H
Carbon disulfide	C	H
Dichloroethane, 1,1-	C	H
Dichloroethylene-trans, 1,2-	C	H
Diethylamine	C	H
Dipropylamine	C	H
Methyl alcohol	C	H
Propenal, 2-	C	H
Tetrahydrofuran	C	H
Triethylamine	C	H
Amyl acetate	C	L
Amyl acetate, iso-	C	L
Amyl acetate, sec-	C	L
Amyl acetate, tert-	C	L
Butanol, 1-	C	L
Butyl acetate	C	L
Butyl acetate, sec-	C	L
Chlorobenzene	C	L
Cumene	C	L
Ethylenediamine	C	L
iso-butyl alcohol	C	L
Propylamine, n-	C	L
Styrene	C	L
Xylene, m-	C	L
Benzene	C	M
Butanone, 2-	C	M
Butenal, 2-	C	M
Butyl acetate, iso-	C	M
Butyl acetate, tert-	C	M
Butylamine	C	M
Butylamine, sec-	C	M
Chloroethyl vinyl ether, 2-	C	M
Chloro-2,3-epoxypropane, 1-	C	M
Cyclohexane	C	M
Dichloroethane, 1,2-	C	M
Dichloropropane	C	M
Dichloropropane, 1,1-	C	M
Dichloropropane, 1,2-	C	M
Dichloropropane, 1,3-	C	M
Dichloropropane-Dichloropropene-MIX	C	M
Dichloropropene(s)	C	M
Dichloropropene, 1,3-	C	M
Dichloropropene, 2,3-	C	M

IGNITABILITY - VAPOR PRESSURE SORTS: RESULTING GROUPS

NAME	RQ IGNITABILITY	VAPOR PRESSURE GROUP
Ethanenitrile	C	M
Ethyl acetate	C	M
Ethyl acrylate	C	M
Ethyl methacrylate	C	M
Methyl methacrylate	C	M
Methyl-2-pentanone, 4-	C	M
Nitropropane, 2-	C	M
Propanone, 2-	C	M
Propenenitrile, 2-	C	M
Propen-1-ol, 2-	C	M
Propyn-1-ol, 2-	C	M
Pyridine	C	M
Toluene	C	M
Trichloroethylene	C	M
Vinyl Acetate	C	M
Xylene	C	M
Xylene, o-	C	M
Xylene, p-	C	M
Bis(2-chloroisopropyl) ether	D	H
Methylene chloride	D	H
Acetic Acid	D	L
Acetic anhydride	D	L
Acetone cyanohydrin	D	L
Acetophenone	D	L