Appendix J to part 60 -- as signed by Administrator Browner (28 Sep 98) and corrected for FR format.

3. Part 60 is amended by adding subpart YYY to read as follows:

Appendix J to Part 60 -- How to Determine Henry's Law Constants, Fm Values, Fr Values, and Fe Values for Organic Compounds

1. Use of Appendix and General Information. This appendix has four sections. Section 2 contains the procedures for determining Henry's law constants, fraction measured (Fm) values, fraction removed values (Fr), and fraction emitted (Fe) values for an individual chemical. Section 3 describes how to locate certain resources. Section 4 contains five tables and thirteen forms.

You should use this appendix if you need to:

1. Determine whether a chemical has a Henry's law constant at 25° C that is less than 0.1 y/x atmosphere per mole fraction (see section 2.1).
2. Determine a fraction measured (Fm) value for a chemical (see section 2.2).
3. Subtract the concentration of a chemical from a Method 25D concentration (see section 2.3).
4. Determine the fraction removed (Fr) value for a chemical that has a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x atmosphere per mole fraction (see section 2.4).
5. Determine the fraction emitted (Fe) value for a

chemical that has a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x atmosphere per mole fraction (see section 2.5).

6. Calculate a Henry's law constant at a specific temperature using a Henry's law constant at a different temperature for the same chemical (see section 2.6).

This appendix requires documentation for some procedures. The referencing subpart, i.e., the rule to which you are complying, may require additional recordkeeping and may specify records concerning this appendix that are to be included in reports.

When the term "WATER8" is used in this appendix, the term "WATER8, or updates to WATER8" must be used for the purposes of this appendix. When the term "CHEM9" is used in this appendix, the term "CHEM9, or updates to CHEM9" must be used for the purposes of this appendix. When the terms "waste" or "wastewater" are used in this appendix, the term "waste or wastewater, as applicable to the referencing subpart" must be used for the purposes of this appendix. When the terms "Henry's law constant" or "Henry's law constants" are used in this appendix, the terms "Henry's law constant(s) with units of atmosphere per mole fraction" must be used for the purposes of this subpart.

2. Procedures.

2.1 How to determine whether a chemical has a Henry's law constant at 25° C that is less than 0.1 y/x. You must use one of the following to determine whether a chemical has a Henry's law constant that is less than 0.1 y/x atmosphere per mole fraction.

2.1.1 Use Table 1. The chemicals listed in Table 1 have a Henry's law constant at 25° C that is less than 0.1 y/x atmosphere per mole fraction.

2.1.2 Use CHEM9 or WATER8. Use CHEM9 or WATER8 to determine the Henry's law constant at 25° C. You must know compound properties, such as solubility in water and vapor pressure, and the structure of the compound to estimate a Henry's law constant using CHEM9 or WATER8.

2.1.3 Determine experimentally. The Henry's law constant may be measured by several laboratory techniques. These techniques can be categorized as either two phase closed systems techniques or open system techniques.

2.1.3.1 Two phase closed systems. For two phase closed system techniques, the volume of each phase and two concentration measurements are needed. The concentration measurements are: (1) concentration in one of the phases, and (2) either the concentration in the other phase or the total concentration in both phases. Use Form 1 to calculate the Henry's law constant for two phase closed systems.

2.1.3.2 Open systems. For open systems, gas is

passed through a liquid volume containing the compound. The Henry's law constant is calculated from the rate of stripping of the compound from the water. Use Form 2 to calculate the Henry's law constant for open systems.

2.1.4 Calculate a Henry's law constant at 25° C from a Henry's law constant at a different temperature for the same chemical. Use the procedures specified in section 2.6 to calculate a Henry's law constant at 25° C from a Henry's law constant at a different temperature for the same chemical.

2.2. How to determine a Fm value for a chemical. Fm means compound-specific fraction measured factor, and it has the units of mass measured by Method 25D divided by the total mass in the wastewater. You must use one of the following to determine the Fm value for a chemical.

2.2.1 Use Table 1 or Table 2. To determine the Fm value for a chemical with a Henry's law constant at 25° C that is less than 0.1 y/x atmosphere per mole fraction, use the Fm value listed for the chemical in Table 1. To determine the Fm value for a chemical with a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x, use the Fm value listed for the chemical in Table 2. (Note to section 2.21 of Appendix J to part 60: Table 1 and Table 2 include Fm values for Method 25D and for Method 305. Unless otherwise specified in this appendix or the

referencing subpart, use the Fm values for Method 25D.)

2.2.2 Use CHEM9. Use CHEM9 to determine an Fm value. You must know the structure of the chemical and certain other compound properties, e.g., boiling point, Antoine's coefficients, vapor pressure, and solubility in water, to estimate an fm value using CHEM9. The accuracy of the computer estimation procedure depends on the nature of the compound and the quality of the available data.

The procedure is flexible in that the method can be used with a variety of different types of compound data. You must confirm and document the compound properties used as inputs for CHEM9 and the lack of availability for missing compound properties. In some cases, this method in not accurate, especially with missing compound properties. Before accepting the estimation values of CHEM9 in these cases, you must document the consistency of the predicted values with other related experimental data.

2.2.3 Measure the Fm value. Spike a sample of waste with a known amount of the compound of interest. Measure the concentration of the sample using Method 25D. The Fm value for the recovery of a specific chemical is the ratio of the Method 25D concentration to the actual concentration in the waste sample. You must minimize loss of organic compounds during sample collection and analysis, and maintain sample integrity. An example of acceptable

sampling and handling procedures are the sampling and handling requirements in Method 25D.

2.2.4 Extrapolating a Method 25D Fm Value from a Method 305 Fm value.

Method 305 measures the recovered concentration, not the actual concentration in the wastewater. The Method 25D correction value may be obtained from the Method 305 value and the ratio of the Method 25D value to the Method 305 value for that compound. This ratio for a compound is independent of the wastewater and may be determined once for each compound.

2.3 How to subtract a chemical from a Method 25D concentration. You must follow the procedures specified in sections 2.3.1 through 2.3.5 to subtract a chemical's concentration from the total concentration measured by Method 25D. You may only subtract from the total Method 25D concentration compounds for which you have a measured concentration (i.e., you must not subtract compounds for which test results are below the quantification limit.) If an Fm value cannot be determined for a chemical, the concentration of the chemical cannot be subtracted from the Method 25D results. You must follow the procedures in Form 3 to subtract a chemical from a Method 25D concentration. Form 4 provides an example.

2.3.2 Determine the concentration for each chemical

in the wastewater stream that will be subtracted from the Method 25D concentration. The concentration for each chemical must be determined using a method and sampling procedure specified in the referencing subpart. Methods other than Method 25D and Method 305 are considered alternative methods for the purposes of this appendix.

2.3.3 Determine the correct Fm value. If an Fm value is needed, use the procedures in section 2.2 of this appendix to determine the correct Fm value.

2.3.4 Adjust the concentration of chemicals which may be subtracted from the Method 25D concentration. You must multiply the concentration of the chemical measured by the alternative method (i.e., a method that is not Method 25D or Method 305 and that is specified in the referencing subpart) by the Method 25D Fm. The product will be the adjusted concentration for that chemical. This adjustment must be done for each chemical you subtract from the concentration measured by Method 25D.

2.3.5 Subtract. Subtract the product(s) you calculated from the Method 25D concentration.

2.4 How to determine an Fr value for a chemical with a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x. Fr means fraction removal value and is unitless. You must use one of the following to determine a Fr value.

2.4.1 Use Table 2. Use the Fr value listed for the chemical in Table 2. The chemicals listed in table 2 have a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x.

2.4.2 Use 0.99. Assign an Fr value of 0.99 to any chemical. This is the highest Fr value that is assigned to a chemical.

2.4.3 Use CHEM9. Use CHEM9 to determine the Fr value of a chemical. You must know the compound structure and the Henry's law constant at 100° C to estimate an Fr value using CHEM9. The Henry's law constant at 100° C for a chemical must be determined as specified in either section 2.4.3.1, 2.4.3.2, or 2.4.3.3. The method used to determine the Henry's law constant at 100° C for a chemical must be documented.

2.4.3.1 Determine Henry's law at 100° C experimentally.

The Henry's law constant may be measured by several laboratory techniques. These techniques can be categorized as either two phase closed systems techniques or open system techniques.

2.4.3.1.1 Two phase closed systems. For two phase closed system techniques, the volume of each phase and two concentration measurements are needed. The concentration measurements are: (1) concentration in one of the phases,

and (2) either the concentration in the other phase or the total concentration in both phases. Use Form 1 to calculate the Henry's law constant for two phase closed systems.

2.4.3.1.2 Open systems. For open systems, gas is passed through a liquid volume containing the compound. The Henry's law constant is calculated from the rate of stripping of the compound from the water. Use Form 2 to calculate the Henry's law constant for open systems.

2.4.3.2 Calculate a Henry's law constant at 100° C from a Henry's law constant at a different temperature for the same chemical. Use the procedures in section 2.6 to calculate a Henry's law constant at 100° C from a Henry's law constant at a different temperature for the same chemical.

2.4.3.3 Literature Value. Experimental values of Henry's law constants at a 100° C for some chemicals are available in data bases or reported in the literature. You must provide the reference for and description of any database or literature you used.

2.5 How to determine an Fe value for a chemical that has a Henry's law constant at 25° C that is greater than or equal to 0.1 y/x. Use the appropriate Fe value as specified in the referencing subpart.

2.5.1 Default Fe values for emissions from both the individual drain system and the treatment process. You must

measure the temperature of the wastewater stream at the point of determination, unless another location is specified by the referencing subpart. If the temperature of the wastewater stream is less than or equal to 35° C, you may use the default Fe values listed in either Table 2 or Table 3. If the temperature of the wastewater stream is greater than 35° C, you must use the default Fe values listed in Table 3.

2.5.1.1 Use Table 2. To use Table 2, use the default Fe value listed for the chemical in Table 2.

2.5.1.2 Use Table 3. You must either use a default Fe listed in Table 3 or use Table 3 to interpolate an Fe value. To use Table 3, you must determine the chemical's Henry's law constant at the temperature you measured for the wastewater stream. You must find this Henry's law constant in the table and select an Fe value greater than or equal to the Fe value that corresponds to the Henry's law constant.

2.5.2 Site-specific Fe values for emissions from the individual drain system. Use WATER8 and Forms 6 and 7 for each type of waste management unit modeled and Forms 8 through 13, as appropriate for the different types of waste management units. (Note that this Fe value does not include Fe values for the treatment process.)

2.5.3 Default Fe values for emissions from the biological treatment process (Fet). The default Fe values

in Table 4 and Table 5 are Fe values for the biological treatment system (i.e., the wastewater treatment plant) and have been assigned the abbreviation “Fet.” You must measure the temperature of the wastewater stream(s) treated in the biological treatment system at the inlet to the biological treatment system (e.g., at the bar screen). If the temperature of the wastewater stream(s) is less than or equal to 35^{o} C, you must use either Table 4 or Table 5 to determine the Fet value. If the temperature of the wastewater stream is greater than 35^{o} C, you must use Table 5 to determine the Fet value.

2.5.3.1 Use Table 4. To use Table 4, use the default Fet value listed for the chemical in Table 4.

2.5.3.2 Use Table 5. To use Table 5, you must either use a default Fet listed in Table 5 or use Table 5 to interpolate an Fet value. You must determine the chemical’s Henry’s law constant at the temperature you measured for the wastewater stream. You must find this Henry’s law constant in the table and select an Fet value greater than or equal to the Fet value that corresponds to the Henry’s law constant.

2.6 How to calculate a Henry’s law constant from a Henry’s law constant at a different temperature for the same chemical. Use WATER8 and Form 5 to estimate a Henry’s law constant from a Henry’s law constant at a different

temperature for the same chemical.

3. Location of resources.

3.1 Where to find information on CHEM9 and WATER8.

3.1.1 CHEM9 and WATER8 access via Internet. You can find CHEM9 and WATER8 on the Internet by accessing EPA's Technology Transfer Network (TTN) via the Internet. The Internet address is http://www.epa.gov/ttn/chief/software.html. If you need more information on the TTN, contact the systems operator at (919) 541-5384.

3.1.2 Procedures used in CHEM9. Reports describing the CHEM9 procedures for estimating Fm, Fr, and Fe values are in Docket Number A-94-32, Item IV-A-1. The database for CHEM9 is not available as a hard copy.

Docket No. A-94-32 is available for public inspection and copying between 8:00 a.m. and 5:30 p.m., Monday through Friday, at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M-1500, first floor, 401 M Street SW, Washington, DC 20460, or by calling (202) 260-7548 or 260-7549. A reasonable fee may be charged for copying.

3.2 Methods.

Method 25D can be found in 40 CFR part 60, Appendix A.

Method 305 can be found in 40 CFR part 63, Appendix A.

4. Tables and Forms. This section contains 5 tables and

13 forms.

TABLE 1 OF APPENDIX J--FM VALUES FOR HENRY'S LAW CONSTANTS AT 25^{0} C LESS THAN 0.1 (Y/X) ATMOSPHERES PER MOLE FRACTION (use with Section 2.1)

Compound	Y/X	Fm25D	Fm 305
1H IMIDAZOLE	0.000004	0.001	0.001
2,4 D	0.000000	0.151	0.167
2,4,5 BENZOIC ACID	0.000007	0.000	0.000
2-HYDROXYETHANAL	0.001400	0.031	0.059
3,4-DIMETHYLPHENOL xylenol	0.004200	0.018	0.017
3,5-DIBROMO-4-HYDROXYBENZONITRILE	0.011700	0.021	0.033
3-OXOPROPANOIC ACID	0.007900	0.002	0.004
4-OXOBUTANOIC ACID	0.011100	0.004	0.006
5-OXOPENTANOIC ACID	0.013900	0.005	0.007
ACETALDOL	0.001900	0.011	0.016
ACETAMIDE	0.000100	0.305	0.463
ACETYL-2-THIOUREA,1-	0.001600	0.034	0.053
ACETYL-5-HYDROXYPIPERIDINE 3	0.038900	0.001	0.001
ACETYLAMINOFLUORENE,2-	0.074400	0.020	0.018
ACETYLPIPERIDINE 3	0.006900	0.151	0.175
ACRIDINE ORANGE *	0.013300	0.050	0.049
ACRIDINE YELLOW *	0.000400	0.001	0.001
ACRYLAMIDE	0.000015	0.003	0.003
ACRYLIC ACID	0.011000	0.431	0.643
ADAMANTANE DICARBOXYLIC ACID	0.002600	0.001	0.001
ADENINE	0.000005	0.001	0.002
ADIPIC ACID	0.000003	0.001	0.001
ADIPONITRILE	0.000700	0.004	0.004
ALACHLOR (M)	0.001800	0.090	0.090
alpha-PICOLINE	0.025900	0.870	0.842
AMETRYN	0.000001	0.001	0.001
AMINOBIPHENYL,4-	0.017200	0.012	0.011
AMINOETHYLPIPERAZINE	0.000021	0.001	0.001
AMINOPHENOL,3-	0.003400	0.035	0.040
AMINOPYRIDINE,4-	0.000005	0.000	0.001
ANILINE	0.097800	0.142	0.138
ANISIDINE,o-	0.097200	0.011	0.013
ANTHRAQUINONE	0.000200	0.001	0.001
ATRAZINE (M)	0.000200	0.117	0.117
BENZENE ACETIC ACID	0.025500	0.014	0.015
BENZENE ARSONIC ACID (M)	0.000006	0.124	0.124

TABLE 1--Continued

Compound	Y/X	Fm25D	Fm 305
BENZENE DICARBOXYLIC ACID	0.000900	0.001	0.001
BENZENE SULFONIC ACID (M)	0.043900	0.146	0.146
BENZIDINE	0.000001	0.000	0.000
BENZO(A)ANTHRACENE	0.000077	0.121	0.095
BENZO(A)PYRENE	0.000077	1.267	1.000
BENZO(ghi)PERYLENE	0.002800	0.006	0.005
BENZO(k)FLUORANTHENE	0.000059	0.001	0.001
BENZOIC ACID	0.001000	0.003	0.003
BENZOTHIAZOLONE 2(2H)- *	0.065600	0.121	0.123
BENZYL ALCOHOL	0.033900	0.069	0.067
BHC,gamma-	0.027400	1.035	0.973
BIS(2-ETHYLHEXYL)PHTHALATE	0.016700	0.317	0.327
BROMOCHLOROMETHYL ACETATE	0.010400	0.342	0.541
BUTYL CELLOSOLVE	0.014600	0.095	0.120
BUTYL-m-CRESOL MONO T	0.052100	0.042	0.039
BUTYL-p-CRESOL MONO T	0.052100	0.042	0.039
BUTYRIC ACID	0.096100	0.089	0.124
CAPROLACTAM	0.000200	0.002	0.003
CAPROLACTONE	0.071100	0.205	0.248
CATECHOL	0.000002	0.000	0.000
CHLORACETOPHENONE,2-	0.048400	0.161	0.152
CHLORO(-p)CRESOL(-m)	0.009100	0.029	0.028
CHLORO-1,2-ETHANE DIOL (M)	0.005400	0.999	0.999
CHLORO-2,5-DIKETOPYRROLIDINE 3 (M)	0.003700	0.430	0.430
CHLOROACETIC ACID	0.003600	0.020	0.028
CHLOROANILINE,p-	0.014700	0.069	0.067
CHLOROBENZOPHENONE (PARA)	0.000200	0.313	0.283
CHLOROBENZYLATE	0.000028	0.000	0.000
CHLOROHYDRIN, a 3 CHLORO 1,2 PROPAN	0.000300	0.003	0.004
CHLOROPHENOL POLYMERS (M)	0.005600	0.000	0.000
CHLOROPHENOL-4	0.062200	0.032	0.031
CHOLINE CHLORIDE	0.000600	0.012	0.015
CHRYSENE	0.000066	0.006	0.004
CITRIC ACID	0.000000	0.000	0.000
CREOSOTE (M)	0.004400	0.025	0.025
CRESOL	0.090000	0.049	0.047
CRESOL(-m)	0.039400	0.035	0.033
CRESOL(-o)	0.091200	0.057	0.055

TABLE 1--Continued

Compound	Y/X	Fm25D	Fm 305
CRESOL(-p)	0.039700	0.028	0.027
CUMYLPHENOL-4	0.093300	0.002	0.002
CYANIDE methyl	0.001500	0.328	0.417
CYANOMETHYL BENZOATE 4 (M)	0.000700	0.128	0.128
DIAZINON	0.001200	0.001	0.001
DIBENZO(a,h)ANTHRACENE	0.002100	0.001	0.001
DIBUTYLPHTHALATE	0.015600	0.002	0.002
DICHLORO-(2,6)-NITROANILINE(4) (M)	0.000400	0.122	0.122
DICHLOROANILINE 2,3	0.029900	0.049	0.047
DICHLOROBENZONITRILE,2,6-	0.064400	0.338	0.322
DICHLOROPHENOL 2,5	0.086100	0.151	0.148
DICHLOROTETRAHYDROFURAN 3,4 (M)	0.007800	0.303	0.303
DICHLORVOS	0.019000	0.008	0.011
DIETHANOLAMINE	0.000000	0.000	0.000
DIETHYL (N,N) ANILINE	0.003200	0.964	0.907
DIETHYL PROPIONAMIDE,2aN (M)	0.001100	0.089	0.089
DIETHYLENE GLYCOL	0.077800	0.000	0.000
DIETHYLENE GLYCOL DIMETHYL ETHER	0.083800	0.105	0.150
DIETHYLENE GLYCOL MONOBUTYL ETHER	0.001200	0.003	0.003
DIETHYLENE GLYCOL MONOETHYL ETHER	0.002700	0.005	0.007
DIETHYLENE GLYCOL MONOETHYL ETHER A	0.035800	0.007	0.010
DIETHYLENE GLYCOL MONOMETHYL ETHER	0.003200	0.004	0.007
DIETHYLENETRIAMINE	0.000001	0.000	0.000
DIETHYLHYDRAZINE N,N	0.019000	0.184	0.253
DIETHYLTHIOPHOSPHATEBENZO M ETHYL P	0.001200	0.000	0.000
DIMETHOATE (M)	0.050900	0.110	0.110
DIMETHYL CARBAMOYL CHLORIDE	0.024700	0.116	0.151
DIMETHYL DISULFIDE	0.083300	0.455	1.000
DIMETHYL FORMAMIDE	0.010600	0.009	0.013
DIMETHYL HYDRAZINE(1,1)	0.091100	0.277	0.382
DIMETHYL PHTHALATE	0.054800	0.006	0.007
DIMETHYLAMINOAZOBENZENE,4-	0.004100	0.022	0.023
DIMETHYLBENZ(A)ANTHRACENE(7,12)	0.000015	0.008	0.006
DIMETHYLBENZIDINE 3,3	0.000075	0.000	0.000
DIMETHYLSULFONE	0.001300	0.002	0.003
DIMETHYLSULFOXIDE	0.026900	0.037	0.057
DINITRO-o-CRESOL(4,6)	0.078000	0.009	0.016
DIPHENYLHYDRAZINE(1,2)	0.013600	0.462	0.448

TABLE 1--Continued

Compound	Y/X	Fm25D	Fm 305
DIPROPYLENE GLYCOL	0.000900	0.002	0.003
ENDRIN	0.084400	0.005	0.004
EPINEPHRINE(M)	0.020300	0.133	0.133
ETHANOLAMINE(mono-)	0.017800	0.004	0.007
ETHYL CARBAMATE	0.000600	0.004	0.008
ETHYL MORPHOLINE, ethyl diethylene	0.011300	0.048	0.059
ETHYLENE GLYCOL	0.000100	0.002	0.005
ETHYLENE GLYCOL MONOBUTYL ETHER	0.029200	0.056	0.071
ETHYLENE GLYCOL MONOETHYL ETHER	0.061700	0.111	0.144
ETHYLENE GLYCOL MONOETHYL ETHER AC.	0.098600	0.057	0.089
ETHYLENE GLYCOL MONOMETHYL ETHER	0.045800	0.101	0.163
ETHYLENE GLYCOL MONOPHENYL ETHER	0.003800	0.005	0.005
ETHYLENE GLYCOL MONOPROPYL ETHER	0.047400	0.182	0.242
ETHYLENE THIOUREA	0.000008	0.001	0.002
ETHYLPHENOL,3-	0.005600	0.021	0.020
FLUOROACETIC ACID, SODIUM SALT *	0.000300	0.750	1.000
FORMALDEHYDE	0.018700	0.533	1.000
FORMAMIDE	0.065600	0.092	0.170
FORMIC ACID	0.038900	0.078	0.225
FUMARIC ACID	0.092200	0.000	0.000
GLUTARIC ACID	0.001100	0.000	0.000
GLYCERIN (GLYCEROL)	0.000700	0.000	0.000
GLYCINAMIDE	0.008200	0.019	0.089
GLYOXYLIC ACID	0.006200	0.001	0.002
GLYPHOSATE	0.000400	0.005	0.009
GUANIDINE, NITROSO *	0.048900	0.000	0.001
GUTHION	0.000093	0.001	0.001
GYLCIDOL	0.050100	0.024	0.032
HEXAMETHYLENE 1,6 DIISOCYANATE	0.014800	0.005	0.007
HEXAMETHYLPHOSPHORAMIDE	0.000000	0.000	0.000
HEXANOIC ACID	0.058900	0.061	0.075
HYDRAZINE	0.037000	0.190	0.332
HYDROCYANIC ACID (M)	0.025800	0.999	0.999
HYDROQUINONE	0.000080	0.000	0.000
HYDROXY-(2)-PROPIONITRILE	0.004200	0.003	0.004
HYDROXYPROPIONALDEHYDE	0.013200	0.066	0.102
INDENO(1,2,3-cd)-PYRENE	0.000000	0.000	0.000
LEAD ACETATE (M)	0.000041	0.062	0.062

TABLE 1--Continued

Compound	Y/X	Fm25D	Fm 305
LEAD SUBACTEATE (M)	0.000800	0.000	0.000
LEUCINE (M)	0.030000	0.469	0.469
MALATHION (M)	0.006700	0.060	0.060
MALEIC ACID	0.000800	0.000	0.000
MALEIC ANHYDRIDE	0.012200	0.027	0.043
MALIC ACID (hydroxybutaneoic)	0.000000	0.000	0.000
MESITYL OXIDE (M)	0.019500	0.999	0.999
METHANE SULFONIC ACID *	0.026700	0.000	0.001
METHOMYL	0.045100	0.008	0.013
METHOXYPHENOL P	0.017200	0.003	0.003
METHYL HYDRAZINE	0.024800	0.082	0.155
METHYL METHANESULFONATE	0.000039	0.001	0.001
METHYL PARATHION	0.000007	0.012	0.020
METHYL SULFURIC ACID (M)	0.031200	0.794	0.794
METHYL THIOPHENOL 4	0.024400	0.885	1.000
METHYL-2-METHOXYAZIRIDINE 1	0.024200	0.727	0.998
METHYLENE DIPHENYL DIISOCYANATE	0.002700	0.010	0.011
METHYLENE DIPHENYLAMINE (MDA)	0.001600	0.002	0.002
METHYLENE-BIS (2-CHLOROANILINE),4,4	0.018700	0.008	0.008
METHYLENEDIANILINE 4,4	0.028500	0.001	0.001
METHYLETHYLIDENE BISPHENOL, 4,4'	0.000001	0.000	0.000
METHYLFURFURAL 5	0.012200	0.859	1.000
METHYLIMINOACETIC ACID	0.055600	0.002	0.004
MONOMETHYL FORMANIDE	0.000054	0.003	0.005
NABAM	0.000000	0.000	0.000
NAPHTHOL,alpha-	0.001400	0.004	0.004
NAPHTHOL,beta-	0.000800	0.003	0.003
NAPHTHYLAMINE,alpha-	0.002800	0.005	0.005
NAPHTHYLAMINE,beta-	0.002000	0.004	0.004
NEOPENTYL GLYCOL	0.000900	0.004	0.005
NIACIN (M)	0.034200	0.606	0.606
NIACINAMIDE(M)	0.067800	0.623	0.623
NITROANILINE(-o) (M)	0.027800	0.351	0.351
NITROGLYCERIN	0.000000	0.013	0.047
NITROPHENOL,2-	0.006500	0.011	0.016
NITROPHENOL,4-	0.000073	0.001	0.001
NITROSODIMETHYLAMINE N	0.048800	0.103	0.285
NITROSODI-n-PROPYLAMINE N	0.025200	0.088	0.105

TABLE 1--Continued

Compound	Y/X	Fm25D	Fm 305
NITROSODIPHENYLAMINE N*	0.046000	0.026	0.025
NITROSOMORPHOLINE	0.004700	0.011	0.019
NITROSO-N-METHYLUREA N	0.001400	0.015	0.037
OODIETH.O2ETH.THIOETH.PHOSPHORATE (M)0.000000	0.096	0.096	
OXALIC ACID	0.000200	0.010	0.028
PARATHION	0.034000	0.001	0.001
PENTAERYTHRITOL	0.000021	0.000	0.000
PHENACETIN (M)	0.012400	0.135	0.135
PHENOL	0.072200	0.036	0.035
PHENYL MERCURIC ACETATE (M)	0.000700	0.057	0.057
PHENYLACETIC ACID (M)	0.045600	0.385	0.385
PHENYLENE DIAMINE(-m)	0.000600	0.000	0.000
PHENYLENE DIAMINE(-o)	0.000600	0.001	0.002
PHENYLENE DIAMINE(-p)	0.000070	0.001	0.001
PHORATE (M)	0.024300	0.095	0.095
PHTHALIC ANHYDRIDE	0.044100	0.016	0.019
PROPANE SULTONE,1,3-	0.000500	0.001	0.002
PROPANONAL (methylglyoxal)	0.001700	0.161	0.242
PROPIOLACTONE b	0.006400	0.199	0.304
PROPORUR (Baygon)	0.003200	0.004	0.004
PROPYLENE GLYCOL	0.083300	0.005	0.008
PYRIDINIUM BROMIDE(M)	0.091700	0.060	0.060
PYRUVIC ACID	0.000200	0.003	0.005
QUINOLINE	0.015000	0.002	0.002
QUINONE	0.057700	0.868	1.000
RESORCINOL	0.001000	0.000	0.000
SIMAZINE (M)	0.000045	0.124	0.124
SODIUM ACETATE	0.000200	0.042	0.079
SODIUM ACRYLATE	0.076100	0.073	0.108
SODIUM FORMATE	0.000094	0.356	0.988
STRYCHNIDIN-10-ONE,2,3-DIMETHOXY(M)	0.000800	0.028	0.028
STRYCHNINE (M)	0.000002	0.058	0.058
SUCCINIC ACID	0.000097	0.000	0.001
SUCCINIMIDE*	0.001800	0.000	0.001
SULFANILIC ACID (M)	0.088900	0.138	0.138
TEREPHTHALIC ACID	0.000600	0.001	0.001
TETRAETHYLDITHIOPYROPHOSPHATE	0.000400	.	.

TABLE 1--Concluded

Compound	Y/X	Fm25D	Fm 305
TETRAETHYLENE GLYCOL MONOMETHYL ETH	0.000200	0.000	0.001
TETRAETHYLENE PENTAMINE	0.000000	0.000	0.000
TETRAETHYLENE PENTAMINE	0.000000	0.000	0.000
TETRAHYDRO 3-FURANOL	0.034400	0.095	0.134
THIOFANOX (M)	0.000500	0.116	0.116
THIOSEMICARBAZIDE *	0.003300	0.000	0.000
THIOUREA,1-(o-CHLOROPHENYL)-	0.000001	0.000	0.001
TOLUENE DIAMINE(2,4)	0.000070	0.001	0.001
TOLUENE DIISOCYANATE(2,4)	0.009200	0.000	0.000
TOLUENEDIAMINE(2,6)	0.000001	0.000	0.000
TOLUENEDIAMINE(3,4)	0.000200	0.002	0.002
TOLUIC ACID (para-)	0.000300	0.011	0.012
TOLUIDINE m	0.089400	0.123	0.118
TRICHLORO(1,1,2)TRIFLUOROETHANE	0.000008	1.042	1.000
TRIETHANOLAMINE	0.000008	0.000	0.000
TRIETHYLENE GLYCOL DIMETHYL ETHER	0.002600	0.017	0.025
TRIETHYLENE GLYCOL MONOMETHYL ETHER	0.001900	0.004	0.005
TRIETHYLENE TETRAMINE	0.000000	0.000	0.000
TRIPROPYLENE GLYCOL	0.005300	0.004	0.005
WARFARIN	0.000000	0.000	0.000

* Molecular structure only approximate.
(M) fraction measured (fm) estimated from Mwt correlation.

TABLE 2 OF APPENDIX J--FR, FM, AND FE[1] VALUES FOR COMPOUNDS WITH HENRY:S LAW CONSTANTS AT 25[0] C GREATER THAN OR EQUAL TO 0.1 Y/X ATMOSPHERE PER MOLE FRACTION

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
1 BROMO 2 CHLORO 2 BUTENE	0.990	0.786	1.000	0.761	
1 BUTYENE	0.990	1.172	1.000	0.872	
1 ETHYL 4 METHYLBENZENE	0.990	1.219	1.000	0.748	
1 HEPTANOL	0.946	0.525	0.564	0.186	
1 HEPTYNE	0.990	1.138	1.000	0.980	
1 HEXYNE	0.990	1.145	1.000	0.924	
1 ISOCYANO 3-METHYLBENZENE	0.990	0.870	0.913	0.210	
1 ISOPROPYL 4 METHYLBENZENE	0.990	1.193	1.000	0.804	
1 METHYLCYCLOHEXENE	0.990	1.138	1.000	0.980	
1 METHYLNAPHTHALENE	0.990	1.237	1.000	0.384	
1 NONYNE	0.990	1.128	1.000	0.980	
1 OCTENE	0.990	1.112	1.000	0.980	
1 OCTYNE	0.990	1.132	1.000	0.980	
1 PENTYNE	0.990	1.156	1.000	0.885	
1,1 DIETHOXYETHANE	0.985	0.810	0.996	0.320	
1,1,3 TRIMETHYLCYCLOPENTANE	0.990	1.124	1.000	0.980	
1,1-DIFLUOROETHANE	0.990	1.077	1.000	0.876	
1,2 DIETHOXYETHANE	0.932	0.762	0.999	0.309	
1,2,4,5 TETRAMETHYLBENZENE	0.990	1.194	1.000	0.887	
1,3-DIOXOLANE	0.642	0.764	1.000	0.232	646-06-0
1,4 PENTADIENE	0.990	1.176	1.000	0.980	
1,5 HEXADIENE	0.990	1.155	1.000	0.980	
1-NITROPROPANE	0.966	0.522	0.982	0.374	
1-PENTANOL	0.990	0.708	0.807	0.579	
1-PENTENE	0.990	1.124	1.000	0.980	
1-PROPOXY 2-PROPANOL	0.430	0.134	0.167	0.070	
2 BUTEN 1 0L	0.207	0.703	0.801	0.095	
2 HEPTANONE	0.990	0.955	0.991	0.356	
2 METHYL 1 BUTANOL	0.797	0.721	0.807	0.201	
2 METHYL 2 BUTENE	0.990	1.143	1.000	0.980	
2 METHYL 2 PENTANOL	0.959	0.806	0.869	0.257	
2 METHYL 3 PENTANOL	0.989	0.539	0.565	0.241	
2 METHYLHEXANE C7H16	0.990	1.099	1.000	0.980	
2 METHYLNAPHTHALENE	0.990	1.237	1.000	0.449	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
2 NONANONE	0.990	0.959	0.970	0.441	
2 OCTANONE	0.990	0.961	0.983	0.350	
2 PENTANONE	0.942	0.919	0.998	0.350	
2 PENTENE	0.990	1.131	1.000	0.980	
2 PROPYLBENZENE	0.990	1.198	1.000	0.582	
2 UNDECANONE	0.990	0.927	0.922	0.495	
2-(1-METHOXY))-1-PROPANOL	0.648	0.202	0.251	0.093	
2,2 DIMETHYL PROPANOIC ACID	0.131	0.296	0.376	0.074	
2,2 DIMETHYLBUTANE C6H14	0.990	1.108	1.000	0.901	
2,2 DIMETHYLPENTANE	0.990	1.106	1.000	0.980	
2,2,5 TRIMETHYLHEXANE C9H20	0.990	1.114	1.000	0.980	
2,3 DIMETHYL 1,3 BUTADIENE	0.990	1.168	1.000	0.942	
2,3 DIMETHYLBUTANE C6H14	0.990	1.115	1.000	0.980	
2,3 DIMETHYLBUTANOL	0.978	0.648	0.694	0.259	
2,3 DIMETHYLPENTANE C7H16	0.990	1.112	1.000	0.980	
2,3,4 TRIMETHYLPENTANE C8H18	0.990	1.121	1.000	0.980	
2,3-DIMETHYLPYRIDINE	0.048	1.048	1.000	0.110	
2,4 DIMETHYLPENTANE C7H16	0.990	1.112	1.000	0.980	
2,4,5 T	.	0.024	0.028	0.000	93-76-5
2,4-DIMETHYLPYRIDINE	0.044	1.048	1.000	0.105	
2,5-DIMETHYLPYRIDINE	0.055	1.048	1.000	0.122	
2,6,DIMETHYL2,5-HEPTADIEN4-0NE	0.990	0.906	0.882	0.354	
2,6-DIMETHYL 2,5-HEPTADIEN 4-ONE	0.990	0.682	0.649	0.278	
2,6-DIMETHYLPYRIDINE	0.067	1.048	1.000	0.137	
2-CHLORO 2-METHYLBUTANE	0.990	1.078	1.000	0.726	
2-ETHYL 3-METHOXYPYRAZINE	0.990	0.039	0.050	0.151	
2-ETHYLPYRAZINE	0.746	0.452	0.527	0.070	
2-ETHYLPYRIDINE	0.080	1.041	1.000	0.141	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
2-FLUOROPROPANE	0.990	1.099	1.000	0.980	
2-ISOBUTYL 3-METHOXYPYRAZINE	0.990	0.044	0.057	0.256	
2-ISOBUTYLPYRAZINE	0.969	0.362	0.395	0.096	
2-METHYL PENTANE C6H14	0.990	1.100	1.000	0.899	
2-METHYLPYRAZINE	0.626	0.505	0.613	0.068	
2-PENTANOL	0.810	0.721	0.807	0.205	
3 METHYL 1 BUTENE	0.990	1.143	1.000	0.980	
3 METHYL PYRIDINE	0.630	0.685	0.663	0.131	
3 METHYLHEPTANE C8H18	0.990	1.098	1.000	0.980	
3 METHYLHEXANE C7H16	0.990	1.099	1.000	0.980	
3,3 DIMETHYLPENTANE C7H16	0.990	1.106	1.000	0.980	
3,4-DIMETHYLPRYIDINE	0.025	1.048	1.000	0.083	
3,5-DIMETHYLPYRIDINE	0.044	1.048	1.000	0.105	
3-ETHYLPRYIDINE	0.080	1.041	1.000	0.141	
3-HEXANOL	0.990	0.638	0.694	0.294	
3-PENTEN-2-OL	0.860	0.610	0.656	0.230	
4 METHYL 1 PENTENE	0.990	1.134	1.000	0.980	
4 METHYL 2 PENTANOL	0.990	0.539	0.565	0.264	
4 METHYL 2 PENTANONE	0.385	0.923	0.968	0.145	
4 METHYLOCTANE C9H20	0.990	1.098	1.000	0.980	
4-ETHYLPYRIDINE	0.064	1.041	1.000	0.123	
4-METHYLPYRIDINE	0.990	1.033	1.000	0.109	
5 METHOXY 2 PENTANONE	0.798	0.327	0.382	0.142	
ACENAPHTHENE	0.990	1.111	0.899	0.804	83-32-9
ACENAPHTHYLENE	0.990	1.094	0.868	0.312	208-96-8
ACETAL	0.990	0.813	1.000	0.432	
ACETALDEHYDE	0.953	0.724	1.000	0.485	75-07-0
ACETATE (M)	0.990	0.558	0.558	0.794	
ACETIC ACID	0.066	0.101	0.189	0.120	64-19-7
ACETIC ANHYDRIDE	0.524	0.165	0.262	0.214	108-24-7
ACETONE	0.843	0.827	0.997	0.261	67-64-1
ACETONITRILE	0.641	0.778	0.989	0.359	75-05-8
ACETOPHENONE	0.735	0.334	0.314	0.137	96-86-2
ACETYL CHLORIDE	0.990	0.923	1.000	0.531	79-36-5
ACETYL DIETHYLMALONATE	0.978	0.018	0.025	0.156	
ACETYLENE	0.990	1.280	1.000	0.711	74-86-2

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
ACETYLFURAN 2 *	0.990	0.365	0.423	0.382	1192-62-7
ACETYLMETHYLPHTHALATE 4	0.990	0.036	0.048	0.127	
ACETYLPYRIDINE 3	0.990	0.927	1.000	0.980	1122-54-9
ACIFLUORFEN	0.990	0.198	0.223	0.601	
ACROLEIN	0.968	0.855	1.000	0.427	107-02-8
ACRYLONITRILE	0.969	0.876	0.999	0.429	107-13-1
ADAMANTANE DICHLORIDE	0.990	1.097	0.986	0.562	
AFLATOXINS (M)	0.990	0.063	0.063	0.406	1402-68-2
ALDICARB	0.027	0.002	0.002	0.007	116-06-3
ALDRIN	0.990	0.056	0.051	0.469	509-00-2
ALKYLIMINE CARBOXYLIC ACID N,SUB(M)0.848	0.125	0.125	0.111		
ALLYL ALCOHOL	0.783	0.538	0.659	0.276	107-18-6
ALLYL CHLORIDE	0.990	1.092	1.000	0.887	107-05-1
ALLYL ETHER, diallyl ether	0.990	0.974	1.000	0.663	
ALPHA METHYL STYRENE	0.990	1.217	1.000	0.767	98-83-9
ALPHA METHYL STYRENE DIMERS	0.990	1.186	0.975	0.855	
alpha-CHLORO-beta-METHYLNAPHTHALENE	0.990	1.197	1.000	0.828	86-52-2
ALPHA-HYDROXYACETALDEHYDE	0.990	0.031	0.059	0.515	
ALPHA-HYDROXYADIPIMIDE (M)	0.925	0.144	0.144	0.135	
AMINO-2-CHLOROTOLUENE 4	0.990	0.020	0.020	0.790	
AMINO-3-CHLORO-5-PHENYLCYCLOHEXA(M)0.622	0.143	0.143	0.086		
AMINO-4-CHLORO-6-CYANOPYRIDINE 2(M)	0.990	0.148	0.148	0.411	
AMINO-4'-CHLOROBIPHENYL 4(M)	0.990	0.123	0.123	0.980	
AMINO-4-CHLOROPYRIDINE 2 (M)	0.990	0.514	0.514	0.710	1072-98-6
AMINO-4-NITROBENZYL ALCOHOL 2 (M)	0.742	0.149	0.149	0.102	
AMINO-4-NITROTOLUENE 2	0.990	0.000	0.001	0.802	99-55-8
AMINO-5-CHLOROPYRIDINE 2 (M)	0.990	0.514	0.514	0.384	1072-98-6

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
AMINOBENZOIC ACID (-p) (M)	0.624	0.368	0.368	0.086	150-13-0
AMINOCYCLOHEXANE	0.934	0.929	0.996	0.416	108-91-8
AMINOMETHYL-3-ISOXAZOLOL 5 (M)	0.990	0.760	0.760	0.287	2763-96-4
AMINOPHENOL(-o)	0.641	0.034	0.039	0.083	95-55-6
AMINOPHENOL(-p)	0.265	0.001	0.001	0.180	101-80-4
AMINO-p'-METHYLAZOBENZENE P (M)	0.990	0.119	0.119	0.852	
AMINOPROPIONITRILE 3 (M)	0.834	0.999	0.999	0.163	151-18-8
AMITROLE (M)	0.618	0.999	0.999	0.085	61-82-5
AMMONIA	0.990	0.520	1.000	0.732	7664-41-7
AMPHETAMINE(M)	0.990	0.401	0.401	0.323	60-15-1
AMYL ACETATE(-n)	0.990	0.426	0.504	0.462	628-63-7
ANETHOLE (M)	0.990	0.180	0.180	0.406	104-46-1
ANISOLE	0.990	1.036	1.000	0.731	100-66-3
ANTHRACENE	0.990	0.109	0.087	0.513	120-12-7
ARAMITE (M)	0.990	0.058	0.058	0.406	140-57-8
AURAMINE (M)	0.990	0.091	0.091	0.980	492-80-8
AZASERINE (M)	0.986	0.138	0.138	0.206	115-02-6
AZEPINE (M)	0.990	0.058	0.058	0.817	111-49-9
AZIRIDINE ethyleneimine	0.990	0.628	0.867	0.685	151-56-4
BENXENEDICARBOXYLIC ACID DIHEPTYL	0.990	0.113	0.119	0.667	
BENZ(c)ACRIDINE (M)	0.990	0.110	0.110	0.853	225-51-4
BENZAL CHLORIDE	0.990	1.159	0.996	0.798	98-87-3
BENZALDEHYDE	0.980	0.516	0.490	0.283	100-52-7
BENZALKONIUM CHLORIDE (M)	0.408	0.129	0.129	0.065	
BENZEN SULFONATE (M)	0.990	0.642	0.642	0.894	
BENZENE	0.990	1.227	1.000	0.797	71-43-2
BENZETHONIUM CHLORIDE (M)	0.956	0.001	0.001	0.140	121-54-0
BENZIDINE DIHYDROCHLORIDE(M)	0.990	0.096	0.096	0.980	531-85-1
BENZO(B)FLUORANTHENE	0.990	1.219	0.962	0.135	205-99-2
BENZO(j)FLUORANTHENE (M)	0.990	0.099	0.099	0.853	205-82-3

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
BENZODIOXANE-1,3 (M)	0.668	0.108	0.108	0.093	
BENZOFLUORANTHENE,3,4-(M)	0.990	0.099	0.099	0.853	205-99-2
BENZOFURAN 2,3	0.990	1.061	0.988	0.374	
BENZOIC ACID, 4 METHYL	0.642	0.102	0.108	0.103	
BENZONITRILE	0.990	0.397	0.373	0.170	100-47-0
BENZOPHENONE	0.990	0.052	0.046	0.834	119-61-9
BENZOPYRENE 3,4 (M)	0.990	0.099	0.099	0.318	50-32-8
BENZOQUINONE,p- (M)	0.990	0.862	0.862	0.794	106-51-4
BENZOTHIAZOLE *	0.990	0.059	0.060	0.341	95-16-9
BENZOTRICHLORIDE	0.990	1.069	0.958	0.558	98-07-7
BENZOYL CHLORIDE	0.990	1.132	0.979	0.468	98-88-4
BENZYL CHLORIDE	0.990	1.164	1.000	0.415	100-44-7
BENZYL METHYL ETHER	0.990	1.047	1.000	0.587	538-86-3
BHC,alpha-	0.990	1.063	1.000	0.729	319-84-6
BHC,beta-	0.990	1.063	1.000	0.854	319-85-7
BHC,delta-	0.990	1.063	1.000	0.588	319-86-8
BICYCLO(4,2,0) OCTA 1.3.5 TRIENE	0.990	1.222	1.000	0.759	
BICYCLO[2.2.1]-2,5-HEPTADIENE DI(M)	0.990	0.146	0.146	0.980	
BIPHENYL	0.990	1.074	0.864	0.445	92-52-4
BIS (2-CHLOROETHOXY) METHANE	0.282	0.170	0.196	0.067	111-91-1
BIS(1,1,2,2-TETRACHLOROPROPYL) ETHE	0.990	0.960	1.000	0.980	
BIS(2-CHLOROETHYL)ETHER	0.656	0.806	0.858	0.162	111-44-4
BIS(2-CHLOROISOPROPYL)ETHER	0.990	0.948	0.972	0.310	108-60-1
BIS(CHLOROMETHYL)ETHER	0.975	0.888	0.999	0.459	542-88-1
BISPHENOL(A)	0.990	0.011	0.011	0.665	80-05-7
BROMACIL	0.990	0.582	1.000	0.980	
BROMO-(1)-CHLOROETHANE-2	0.990	0.711	1.000	0.995	107-04-0
BROMO-3-CHLOROBUTADIENE 2	0.990	0.803	1.000	0.820	
BROMO-4-CHLORO-6-CYANOBENZYL ALC(M)	0.941	0.131	0.131	0.136	
BROMO-4-CHLOROCYCLOHEXANE 1	0.990	0.819	0.986	0.980	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
BROMO-4-CYANOMETHYL BENZOATE 2 (M)	0.990	0.105	0.105	0.980	
BROMO-4-CYANOMETHYL BENZOATE 3 (M)	0.990	0.105	0.105	0.885	
BROMOACETONE	0.520	0.356	0.590	0.145	598-31-2
BROMOBENZENE	0.990	1.182	1.000	0.745	108-86-1
BROMOBENZYL ALCOHOL -(m)	0.371	0.012	0.015	0.083	15852-73-
BROMOBENZYL ALCOHOL -(o)	0.371	0.012	0.015	0.083	18982-34-
BROMOBENZYL ALCOHOL -(p)	0.371	0.012	0.015	0.083	873-75-6
BROMOCHLOROBENZENE P	0.990	0.870	1.000	0.980	106-39-8
BROMOCHLOROBENZYL ALCOHOL	0.420	0.007	0.009	0.107	
BROMOCHLOROMETHANE	0.990	1.017	1.000	0.992	74-97-5
BROMODICHLOROMETHANE	0.990	0.735	1.000	0.980	75-27-4
BROMOETHYL ACETATE	0.911	0.470	0.801	0.458	927-68-4
BROMOETHYLENE	0.990	0.629	1.000	0.990	543-60-2
BROMOFORM	0.990	0.480	0.998	0.494	75-25-2
BROMOMETHANE	0.990	0.539	1.000	0.852	74-83-9
BROMOPHENYL PHENYL ETHER,4-	0.990	0.240	0.265	0.269	101-55-3
BROMOPROPIONITRILE 3 (M)	0.990	0.422	0.422	0.856	2417-90-5
BROMOTOLUENE 4	0.990	1.164	1.000	0.676	106-38-7
BROMOURACIL,5- (M)	0.990	0.130	0.130	0.980	51-20-7
BUTADIENE-(1,3)	0.990	1.187	1.000	0.979	106-99-0
BUTANE	0.990	1.080	1.000	0.980	106-97-8
BUTANEDINITRILE	0.990	0.007	0.009	0.182	110-61-2
BUTANENITRILE (M)	0.521	0.999	0.999	0.266	109-74-0
BUTANOL ISO	0.821	0.647	0.756	0.068	78-83-1
BUTANOL(S)	0.846	0.502	0.600	0.253	78-92-2
BUTANOL-1	0.818	0.502	0.600	0.177	71-36-3
BUTENE	0.990	1.131	1.000	0.980	
BUTYL ACETATE(-n)	0.990	0.808	0.995	0.368	123-86-4
BUTYL ACRYLATE	0.990	0.781	0.910	0.492	141-32-2
BUTYL BENZENE	0.990	1.181	1.000	0.980	104-51-8
BUTYL BENZYL PHTHALATE	0.990	0.052	0.053	0.852	85-68-7

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
BUTYL CARBITOL	0.990	0.006	0.008	0.980	112-34-5
BUTYL MERCAPTAN	0.990	0.692	1.000	0.980	
BUTYL-3-METHOXY PYRAZINE,2- ISO (M)	0.990	0.142	0.142	0.980	24683-00-
BUTYLAMINE	0.904	0.813	0.948	0.241	109-73-9
BUTYLBUTOXY PROPIONATE	0.990	0.263	0.276	0.266	
BUTYLENE GLYCOL-(1,3)	0.780	0.003	0.004	0.096	107-88-0
BUTYLISOBUTYRATE	0.990	0.873	1.000	0.794	
BUTYRALDEHYDE	0.989	0.861	0.992	0.490	123-72-8
BUTYRALDEHYDE ISO	0.989	0.886	1.000	0.438	78-84-2
c10 linear	0.990	1.088	1.000	0.980	
c11 linear	0.990	1.088	1.000	0.980	
CACODYLIC ACID (M)	0.983	0.354	0.354	0.219	75-60-5
CAMPHENE (M)	0.990	0.383	0.383	0.588	79-92-5
CAPTAN	0.990	0.007	0.008	0.196	
CARBARYL sevin	0.990	0.015	0.016	0.202	63-25-2
CARBAZOLE (M)	0.990	0.141	0.141	0.980	86-74-8
CARBENDAZIM	0.957	0.023	0.038	0.070	
CARBON DIOXIDE (M)	0.990	0.999	0.999	0.896	
CARBON DISULFIDE	0.990	0.213	1.000	0.918	75-15-0
CARBON OXYFLUORIDE*	0.990	0.884	1.000	0.993	353-50-4
CARBON TETRACHLORIDE	0.990	1.027	1.000	0.900	56-23-5
CARBONYL FLUORIDE *	0.658	0.884	1.000	0.358	
CARBONYL SULFIDE	0.886	0.547	1.000	0.500	
CHLORAL	0.990	0.938	1.000	0.556	302-17-0
CHLORAMBEN	0.962	0.545	0.633	0.229	
CHLORAMBUCIL	0.957	0.031	0.031	0.101	305-03-3
CHLORDANE	0.990	0.438	0.407	0.151	57-74-9
CHLORENDIC ANHYDRIDE (M)	0.990	0.558	0.558	0.794	115-27-5
CHLORINATED TARS (M)	0.990	0.050	0.050	0.343	
CHLORNAPHAZINE	0.990	0.422	0.385	0.158	
CHLORO 2 BUTENE,1 trans	0.990	1.098	1.000	0.632	
CHLORO(-p)PHENYLHYDRAZINE(M)	0.990	0.286	0.286	0.398	
CHLORO-1,3-CYCLOPENTADIENE 5	0.990	1.148	1.000	0.948	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
CHLORO-2,2-DIBROMOETHANE 1	0.990	0.569	0.919	0.526	
CHLORO-2,3-EPOXYPROPANE,1- (M)	0.977	0.999	0.999	0.321	106-89-8
CHLORO-2-METHOXYBENZOIC ACID 4 (M)	0.990	0.132	0.132	0.722	57479-70-
CHLORO-2-NITROBENZYL ALCOHOL 4 (M)	0.601	0.132	0.132	0.083	22996-18-
CHLORO-3-NITRO-5-PHENYLCYCLOHEXA(M)0.631	0.131	0.131	0.087		
CHLORO-3-NITROANILINE 4 (M)	0.990	0.139	0.139	0.342	635-22-3
CHLORO-4AMINOCOUMARAN-6CARBOXYLI(M)0.990	0.118	0.118	0.980		
CHLORO-4-CYANOBENZYL ALCOHOL 2 (M)	0.743	0.149	0.149	0.102	
CHLORO-4-HYDROXYBIPHENYL 3 (M)	0.990	0.123	0.123	0.980	92-04-6
CHLORO-4-METHOXY-6-AMINOBENZOIC(M)	0.990	0.125	0.125	0.449	
CHLORO-4-METHYL-N-METHYLBENZAMID(M)0.832	0.134	0.134	0.109		
CHLORO-4-NITROANISOLE 2 (M)	0.990	0.131	0.131	0.980	
CHLORO-4-PHENYLPYRIDINE 2(M)	0.839	0.130	0.130	0.110	
CHLORO-5AMINO3PYRIDINE CARB.ACID(M)	0.990	0.134	0.134	0.439	
CHLORO-5-CYANOPHTHALIC ACID 4 (M)	0.990	0.112	0.112	0.980	
CHLORO-5-CYANOTOLUENE 3 (M)	0.990	0.150	0.150	0.601	
CHLORO-5-FLUOROTOLUENE 3	0.990	1.150	1.000	0.400	443-83-4
CHLORO-5-PHENOXYDIMETHYL PHTHALA(M)	0.990	0.065	0.065	0.980	
CHLOROACETALDEHYDE	0.762	0.855	0.997	0.324	107-20-0
CHLOROALLYL ALCOHOL 2	0.926	0.270	0.291	0.244	5976-47-6
CHLOROANILINE(2)	0.990	0.245	0.238	0.867	95-51-2

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
CHLOROANILINE(3)	0.990	0.108	0.105	0.867	108-42-9
CHLOROAZOBENZENE	0.990	1.204	1.000	0.852	
CHLOROBENZENE	0.990	1.157	1.000	0.728	108-90-7
CHLOROBENZENESULFONIC ACID (-p)(M)	0.826	0.137	0.137	0.108	100-03-8
CHLOROBENZILATE	0.876	0.000	0.000	0.030	510-15-6
CHLOROBENZOIC ACID,2	0.629	0.083	0.089	0.105	118-91-2
CHLOROBENZOIC ACID,3-	0.535	0.083	0.089	0.092	535-80-8
CHLOROBENZOIC ACID,4-	0.535	0.083	0.089	0.092	74-11-3
CHLOROBENZOTRICHLORIDE P	0.990	1.103	1.000	0.980	5216-25-1
CHLOROBENZOTRIFLUORIDE, P	0.990	1.131	1.000	0.980	
CHLOROBENZYL ALCOHOL -(m)	0.852	0.035	0.033	0.074	873-63-2
CHLOROBENZYL ALCOHOL -(o)	0.275	0.058	0.056	0.074	17849-38-
CHLOROBENZYL ALCOHOL -(p)	0.251	0.040	0.039	0.074	873-76-7
CHLOROBIPHENYL (-p)	0.990	1.204	1.000	0.840	2051-62-9
CHLOROBUTADIENE,1	0.990	1.124	1.000	0.850	
CHLOROCOUMARAN 2 (M)	0.990	0.135	0.135	0.832	2051-59-4
CHLOROCYANOBENZENE (1,4) (M)	0.990	0.362	0.362	0.980	873-32-5
CHLOROCYCLOHEXANE	0.990	1.081	1.000	0.980	542-18-7
CHLOROCYCLOHEXANOL 2	0.990	0.102	0.107	0.428	1561-86-0
CHLOROCYCLOHEXANOL 4	0.990	0.102	0.107	0.587	
CHLORODIACETYL (M)	0.990	0.651	0.651	0.980	
CHLORODIMETHYL PHTHALATE 3 (M)	0.990	0.111	0.111	0.980	
CHLORODIPHENYL THIOETHER P (M)	0.990	0.123	0.123	0.851	7005-72-3
CHLOROETHANE (ethyl chloride)	0.990	1.046	1.000	0.901	75-00-3
CHLOROETHANOL (ETHYLENE CHLOROHYDRI	0.480	0.256	0.309	0.221	107-07-3
CHLOROETHYL(2-) VINYL ETHER	0.990	0.934	1.000	0.910	110-75-8
CHLOROETHYLENE	0.990	1.064	1.000	0.757	
CHLOROFLUOROBENZENE P	0.990	1.152	1.000	0.980	352-33-0

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
CHLOROFLUOROMETHANE *	0.355	1.075	1.000	0.980	593-70-4
CHLOROFORM	0.990	1.023	1.000	0.775	67-66-3
CHLOROHYDROXYPHENYL4 METHYLBENZ(M)	0.990	0.094	0.094	0.980	
CHLOROMETHYL ACETYLENE *	0.990	1.121	1.000	0.980	
CHLOROMETHYL BENZOATE P (M)	0.990	0.140	0.140	0.980	1126-46-1
CHLOROMETHYL ETHYL KETONE	0.990	0.873	0.935	0.697	
CHLOROMETHYL METHYL ETHER	0.937	0.840	1.000	0.494	107-30-2
CHLOROMETHYL PHENYL KETONE	0.290	0.715	0.673	0.077	532-27-4
CHLOROMETHYL PHENYLHYDRAZINE P (M)	0.990	0.147	0.147	0.413	
CHLOROMETHYLAMINOIMINE (M)	0.990	0.999	0.999	0.913	
CHLORONAPHTHALENE,2-	0.990	1.177	0.980	0.870	91-58-7
CHLORONITROALKOXYIMINE (M)	0.958	0.110	0.110	0.142	
CHLORONITROBENZENE(-o)	0.990	0.519	0.625	0.808	88-73-3
CHLORONITROBENZENE, p	0.990	0.591	0.713	0.301	
CHLORO-N-METHYLBENZAMIDE P (M)	0.818	0.140	0.140	0.107	
CHLOROPHENOL-2	0.323	0.245	0.240	0.107	95-97-8
CHLOROPHENOL-3	0.635	0.057	0.057	0.078	108-43-0
CHLOROPHENYL PHENYL ETHER,4-*	0.990	0.861	0.775	0.389	7005-72-3
CHLOROPHENYLETHANOL 1,1	0.990	0.057	0.054	0.807	
CHLOROPHTHALIC ANHYDRIDE 4 (M)	0.595	0.133	0.133	0.083	
CHLORO-p'-METHYLBIPHENYL P (M)	0.990	0.124	0.124	0.850	1667-11-4
CHLOROPRENE	0.990	1.124	1.000	0.677	126-99-8
CHLOROPROPANE-1	0.990	1.055	1.000	0.858	540-54-5
CHLOROPROPANE-2	0.990	1.050	1.000	0.867	75-29-6
CHLOROPROPENE 3	0.990	1.092	1.000	0.980	557-98-2

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
CHLOROPROPIONITRILE,3-	0.359	0.580	0.622	0.111	542-76-7
CHLOROPROPYLENE-2	0.990	1.090	1.000	0.980	557-98-2
CHLORO-p-XYLENE	0.987	1.163	1.000	0.592	104-82-5
CHLOROPYRIDINE 2 (M)	0.990	0.769	0.769	0.599	109-09-1
CHLOROSTYRENE (-4)	0.990	1.179	1.000	0.788	1331-28-8
CHLOROTETRAHYDROFURAN 3 (M)	0.990	0.642	0.642	0.407	
CHLOROTHIOPHENOL P *	0.990	0.893	1.000	0.980	106-54-7
CHLOROTOLUENE-4	0.990	1.164	1.000	0.741	106-43-4
CHLOROURACIL,5- (M)	0.990	0.138	0.138	0.980	1820-81-1
cis 1,2 DIMETHYLCYCLOHEXANE	0.990	1.117	1.000	0.980	
CITRUS RED #2 (M)	0.990	0.071	0.071	0.853	6358-53-8
COPPER PHTHALOCYANINE (M)	0.990	0.000	0.000	0.764	147-14-8
COUMARAN (M)	0.990	0.215	0.215	0.980	91-64-5
CROTONALDEHYDE	0.578	0.887	0.974	0.212	470-30-3
CROTONYLENE (2-BUTYNE)	0.990	1.185	1.000	0.980	503-17-3
CUMENE (isopropylbenzene)	0.990	1.197	1.000	0.876	98-82-8
CUMENE HYDROPEROXIDE	0.987	0.478	0.464	0.204	
CYANOBENZYL ALCOHOL P *	0.147	0.002	0.002	0.070	
CYANOGEN	0.990	0.800	1.000	0.747	460-19-5
CYANOGEN BROMIDE *	0.990	0.558	1.000	0.462	506-68-3
CYANOGEN CHLORIDE(M)	0.990	0.999	0.999	0.704	506-77-4
CYANOGUANIDINE (M)	0.990	0.999	0.999	0.648	461-58-5
CYANOMETHYLPHTHALATE 4 (M)	0.990	0.071	0.071	0.980	
CYANOPYRIDINE (-4) *	0.990	0.118	0.124	0.980	100-48-1
CYANOPYRIDINE 3 *	0.990	0.113	0.119	0.980	100-54-9
CYANOTOLUENE 4	0.990	0.450	0.419	0.980	
CYANURIC ACID (M)	0.491	0.505	0.505	0.072	108-80-5
CYCASIN (M)	0.990	0.099	0.099	0.794	14901-08-
CYCLOHEXADIENE1,4DIONE2,6BIS11DIMET	0.753	0.027	0.026	0.072	
CYCLOHEXANE	0.990	1.093	1.000	0.859	110-82-7
CYCLOHEXANOL	0.851	0.456	0.493	0.159	
CYCLOHEXANOL	0.925	0.243	0.262	0.136	108-93-0

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
CYCLOHEXANONE	0.198	0.703	0.740	0.088	108-94-1
CYCLOHEXENE	0.990	1.136	1.000	0.980	110-83-8
CYCLOHEXENE 1 ONE, 2	0.759	0.498	0.507	0.183	
CYCLOHEXYL ACETATE	0.990	0.846	0.963	0.273	622-45-7
CYCLOHEXYL-2,2-DIPHENYLETHYLAMIN(M)	0.990	0.097	0.097	0.384	
CYCLOHEXYL-4,6-DINITROPHENOL,2-(M)	0.990	0.092	0.092	0.980	131-89-5
CYCLOHEXYLAMINE	0.978	0.878	0.940	0.280	108-91-8
CYCLOHEXYLCYCLOHEXANONE 4	0.990	0.732	0.707	0.727	56025-96-
CYCLOPENTADIENE	0.990	1.198	1.000	0.980	
CYCLOPENTADIENE 1,3	0.990	1.198	1.000	0.713	
CYCLOPENTANE	0.990	1.093	1.000	0.980	
CYCLOPENTENE	0.990	1.144	1.000	0.979	
CYCLOPHOSPHAMIDE (M)	0.990	0.094	0.094	0.610	50-18-0
CYCLOPROPANE C3H6	0.990	1.093	1.000	0.980	
CYLCOHEXYL o,o-DIMETHYL PHOS.DIT(M)	0.99	0.105	0.980	0.980	
CYMENE,para	0.990	1.193	1.000	0.871	
CYTOSINE (M)	0.990	0.811	0.811	0.831	71-30-7
DAUNOMYCIN(M)	0.990	0.000	0.000	0.853	20830-81-
DAZOMET	0.900	0.085	0.153	0.066	
DDD,p,p'-	0.950	1.150	1.000	0.394	72-54-8
DDE,p,p'-	0.990	1.138	0.990	0.621	72-55-9
DDT	0.990	1.131	1.000	0.980	50-29-3
DECANAL	0.990	0.918	0.928	0.612	
DECENE, 8 METHYL 1-	0.990	1.116	1.000	0.980	
DIACETYL (M)	0.990	0.999	0.999	0.318	431-03-8
DIAMINO-5-SULFONYL BENZYL 2,4 (M)	0.990	0.133	0.133	0.628	
DIAMINODIPHENYLMETHANE P,P' (M)	0.990	0.126	0.126	0.980	101-77-9
DIAZOMETHANE	0.575	0.573	1.000	0.356	
DIBENZOFURANS	0.990	1.112	0.967	0.740	
DIBENZOPYRENE 1,2,7,8	0.990	0.803	0.633	0.720	
DIBROMO-3-CHLOROPROPANE,1,2	0.709	1.048	1.000	0.185	96-12-8
DIBROMOCHLOROMETHANE	0.990	0.585	1.000	0.643	124-48-1

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
DIBROMOETHANE-1,2	0.990	1.114	1.000	0.852	106-93-4
DIBROMOMETHANE	0.990	0.493	1.000	0.558	74-95-3
DIBUTYL ETHER	0.990	0.958	1.000	0.727	142-96-1
DIBUTYLAMINE	0.990	0.949	0.984	0.300	
DICHLORO 2-PROPANOL 1,3	0.990	0.237	0.257	0.570	96-23-1
DICHLORO PROPANOL 2,3	0.507	0.119	0.130	0.255	616-23-9
DICHLORO-1,3-CYCLOPENTADIENE 5,5(M)	0.990	0.413	0.413	0.980	
DICHLORO-2-BUTENE 1,2	0.990	1.079	1.000	0.562	
DICHLORO-2-BUTENE(1,4)	0.990	1.079	1.000	0.453	764-41-0
DICHLORO-2-BUTENE, 1,4	0.990	1.079	1.000	0.612	
DICHLOROANILINE(2,3)	0.527	0.121	0.117	0.064	
DICHLOROBENZENE(1,2) (-o)	0.990	1.134	1.000	0.637	95-50-1
DICHLOROBENZENE(1,3) (-m)	0.990	1.134	1.000	0.719	541-73-1
DICHLOROBENZENE(1,4) (-p)	0.990	1.134	1.000	0.724	106-46-7
DICHLOROBENZIDINE,3,3'-	0.001	0.055	0.053	0.026	91-94-1
DICHLOROBENZOPHENONE P,P	0.978	0.366	0.332	0.093	90-98-2
DICHLOROBIPHENYL (PARA)	0.990	1.177	1.000	0.914	213029-08
DICHLOROBUTANE (1,4)	0.990	1.052	1.000	0.980	110-56-5
DICHLORODIPHENYLMETHANE (M)	0.990	0.107	0.107	0.855	2051-90-3
DICHLOROETHANE(1,1)	0.990	1.024	1.000	0.792	75-34-3
DICHLOROETHANE(1,2)	0.990	1.040	1.000	0.640	107-06-2
DICHLOROETHENE 1,2 trans	0.990	1.061	1.000	0.981	156-60-5
DICHLOROETHENE(1,1)	0.990	1.061	1.000	0.937	75-35-4
DICHLOROETHYL ETHER	0.872	0.711	0.757	0.212	
DICHLOROETHYLENE(1,2) cis	0.990	1.061	1.000	0.904	156-54-2
DICHLOROIODOMETHANE	0.990	0.553	0.975	0.362	
DICHLOROMONOFLUOROMETHANE	0.990	1.023	1.000	0.989	75-43-4
DICHLOROPHENOL	0.990	0.940	0.920	0.227	
DICHLOROPHENOL(2,4)	0.945	0.158	0.154	0.094	120-83-2
DICHLOROPHENOL(2,6)	0.846	0.213	0.209	0.094	87-65-0

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
DICHLOROPHENOXYACETIC ACID(2,4)	0.990	0.922	1.000	0.978	94-75-7
DICHLOROPROPANE 1,2	0.990	1.054	1.000	0.720	78-87-5
DICHLOROPROPENE(1,3)	0.990	1.071	1.000	0.759	542-75-6
DICHLOROPROPYLENE,1,2-(cis)	0.990	1.062	1.000	0.831	
DICHLOROPROPYLENE,1,2-(trans)	0.990	1.072	1.000	0.853	563-54-2
DICHLOROPROPYLENE-2,3	0.990	1.071	1.000	0.857	78-88-6
DICHLOROSTYRENE 2,6	0.990	1.149	1.000	0.823	
DICHLORO-TRANS-ETHYLENE(1,2)	0.990	1.061	1.000	0.980	540-59-0
DIELDRIN	0.990	0.259	0.235	0.225	60-57-1
DIETHYL AMINE	0.828	0.865	1.000	0.286	109-89-7
DIETHYL ETHER	0.990	0.856	1.000	0.423	602-97-6
DIETHYL ETHER ACID CHLORIDE (M)	0.990	0.379	0.379	0.980	
DIETHYL PHTHALATE	0.990	0.054	0.063	0.853	84-66-2
DIETHYL SULFATE	0.909	0.001	0.002	0.107	
DIETHYL THIOETHER(M)	0.990	0.999	0.999	0.980	352-93-2
DIETHYLBENZENE P	0.990	1.191	1.000	0.784	105-05-5
DIETHYLDIPHENYL UREA SYM(M)	0.990	0.091	0.091	0.859	85-98-3
DIETHYLENE GLYCOL DIETHYL ETHER	0.316	0.168	0.217	0.033	
DIETHYLUREA 1,1 (M)	0.729	0.726	0.726	0.101	634-95-7
DIHYDRO-5-OXAZALONE (DIHYDROAZLA(M)	0.990	0.982	0.982	0.722	
DIISOBUTYLENE	0.990	1.127	1.000	0.980	
DIISODECYL PHTHALATE	0.990	0.007	0.007	0.451	
DIISOPROPYL BENZENE (PARA)	0.990	1.184	1.000	0.980	100-18-5
DIISOPROPYL KETONE	0.990	0.973	1.000	0.483	
DIISOPROPYLAMINE	0.990	0.939	1.000	0.409	
DIMETHOXY METHANE	0.878	0.594	0.950	0.442	109-87-5
DIMETHOXY-(3,3')-BENZIDINE	0.990	0.000	0.000	0.660	119-90-4
DIMETHYL AMINE	0.321	0.709	0.996	0.198	124-40-3
DIMETHYL BENZ(A)ANT 7,12	0.990	1.214	0.973	0.857	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
DIMETHYL BENZOIC ACID, 2,4	0.854	0.101	0.105	0.115	
DIMETHYL BENZOIC ACID, 3,5	0.854	0.101	0.105	0.115	
DIMETHYL BENZYLAMINE N,N	0.990	0.003	0.003	0.587	103-83-3
DIMETHYL METHYLTHIOCARBAMATE N,N(M)	0.990	0.676	0.676	0.863	
DIMETHYL NITROISOPROPYLAMINE N,N(M)	0.990	0.439	0.439	0.389	
DIMETHYL NITROSAMINE (M)	0.990	0.999	0.999	0.980	
DIMETHYL SULFATE	0.549	0.034	0.086	0.079	77-78-1
DIMETHYL SULFIDE	0.990	0.508	1.000	0.829	75-18-3
DIMETHYL TRISULFIDE	0.990	0.354	1.000	0.980	
DIMETHYL-1-NITROBENZENE 2,4	0.990	0.564	0.669	0.801	25168-04-
DIMETHYLACETAMIDE	0.547	0.707	0.994	0.284	
dimethylaniline N,N	0.990	0.000	0.001	0.342	57-14-7
DIMETHYLBENZYL HYDROPEROXIDE (M)	0.990	0.149	0.149	0.466	80-15-9
DIMETHYLETHYLAMINE	0.990	0.865	1.000	0.523	75-64-9
DIMETHYLGLYCOL	0.990	0.102	0.136	0.483	
DIMETHYLHYDANTOIN,5,5- (M)	0.990	0.521	0.521	0.980	77-71-4
DIMETHYLPHENOL(2,4)	0.990	0.050	0.047	0.552	105-67-9
DIMETHYLPHENYLCARBINOL (M)	0.990	0.385	0.385	0.794	617-94-7
DIMETHYLSULFOXIDE	0.854	0.821	0.990	0.419	
DINITROBENZENE M	0.023	0.564	1.000	0.285	99-65-0
DINITROPHENOL 2,4	0.990	0.004	0.008	0.059	51-28-5
DINITROTOLUENE 2,6	0.990	.	.	0.109	606-20-2
DINITROTOLUENE(2,4)	0.390	0.052	0.085	0.178	121-14-2
DINOCAP (M)	0.990	0.043	0.043	0.980	39300-45-
DI-n-OCTYL PHTHALATE	0.990	0.000	0.000	0.980	117-84-0
DINOSEB (M)	0.990	0.105	0.105	0.575	88-85-7
DIOXANE(1,4)	0.387	0.618	0.869	0.181	123-91-1
DIOXIN (M)	0.990	0.064	0.064	0.279	828-00-2

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
DIPHENYL ETHER (M)	0.990	0.140	0.140	0.662	101-84-8
DIPHENYL THIOETHER(M)	0.990	0.132	0.132	0.838	139-66-2
DIPHENYLAMINE (M)	0.513	0.140	0.140	0.074	122-39-4
DIPHENYLBUTADIENE 1,3 (M)	0.990	0.122	0.122	0.647	886-65-7
DIPHENYLCHLOROMETHANE (M)	0.990	0.124	0.124	0.850	90-99-3
DIPHENYLDIKETONE (M)	0.990	0.120	0.120	0.851	134-81-6
DIPHENYLETHANE 1,1(M)	0.990	0.134	0.134	0.551	
DIPHENYLETHANOL 1,1 (M)	0.416	0.126	0.126	0.066	599-67-7
DIPHENYLHYDRAZINE,1,1- (M)	0.990	0.133	0.133	0.796	530-50-7
DIPHENYLMETHANE	0.990	0.628	0.509	0.195	101-81-5
DIPROPYLAMINE	0.979	0.927	0.998	0.411	142-84-7
DIPROPYLBUTRAL	0.990	0.622	0.618	0.292	
DIPROPYLFORMAMIDE(M)	0.990	0.503	0.503	0.980	6282-00-4
DI-tert-BUTYL-p-CRESOL	0.990	0.031	0.028	0.072	128-37-0
DIVINYL KETONE (M)	0.990	0.999	0.999	0.457	
dodecane	0.990	1.089	1.000	0.980	
EDTA(M)	0.990	0.999	0.999	0.412	60-00-4
ENDOSULFAN	0.900	0.020	0.018	0.102	115-29-7
ENDOSULFAN SULFATE(M)	0.990	0.014	0.014	0.980	1031-07-8
ENDRIN ALDEHYDE (M)	0.990	0.999	0.999	0.412	
EPICHLOROHYDRIN	0.915	0.847	0.939	0.350	106-89-8
EPOXYBUTANE 1,2	0.990	0.879	1.000	0.582	
ETHANE	0.990	1.067	1.000	0.946	
ETHANOL	0.322	0.586	0.860	0.126	64-17-5
ETHENE	0.990	1.187	1.000	0.980	
ETHENYL 2 METHYL BENZENE, 1-	0.990	1.240	1.000	0.710	
ETHOXYETHANOL-2	0.545	0.144	0.207	0.134	110-80-5
ETHYL 2 METHYL BENZENE, 1-	0.990	1.198	1.000	0.731	
ETHYL ACETATE PEROXIDE (M)	0.990	0.659	0.659	0.706	
ETHYL ACRYLATE	0.990	0.788	1.000	0.483	140-88-5
ETHYL BUTANOATE	0.990	0.775	1.000	0.457	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
ETHYL CYANIDE (PROPIONITRILE) (M)	0.990	0.999	0.999	0.580	107-12-0
ETHYL ETHER	0.990	0.856	1.000	0.506	60-29-7
ETHYL HEPTANOATE	0.990	0.868	1.000	0.470	
ETHYL ISOPROPYL PEROXIDE(M)	0.990	0.931	0.931	0.386	
ETHYL METHANOATE	0.990	0.537	1.000	0.566	
ETHYL PENTANOATE	0.990	0.813	1.000	0.428	
ETHYL PEROXIDE	0.341	0.146	0.283	0.112	
ETHYL PROPYL ETHER	0.990	0.894	1.000	0.571	
ETHYL S,S-DIPHENYL PHOSPHORODITH(M)	0.990	0.070	0.070	0.333	1709-49-8
ETHYL TOLUENE, 4	0.990	1.198	1.000	0.857	
ETHYL VINYL ETHER	0.990	0.890	1.000	0.652	
ETHYL(2) HEXANOL	0.990	0.256	0.268	0.266	104-76-7
ETHYL-(2)-PROPYL-(3) ACROLEIN (M)	0.977	0.999	0.999	0.257	645-62-5
ETHYLACETATE	0.987	0.722	1.000	0.404	141-78-6
ETHYLAMINE	0.358	0.711	0.999	0.280	75-04-7
ETHYLBENZENE	0.990	1.204	1.000	0.828	100-41-4
ETHYLENE	0.990	1.187	1.000	0.980	74-85-1
ETHYLENE DIAMINE	0.963	0.012	0.022	0.241	107-15-3
ETHYLENE DIBROMIDE	0.990	0.537	0.999	0.565	106-93-4
ETHYLENE GLYCOL DIMETHYL ETHER	0.905	0.601	0.860	0.316	110-71-4
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	0.772	0.031	0.043	0.067	
ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE	0.285	0.055	0.093	0.048	110-49-6
ETHYLENE OXIDE	0.986	0.712	1.000	0.503	75-21-8
ETHYLETHOXY PROPIONATE	0.940	0.491	0.577	0.213	
ETHYLHEXYL HEXANOL 2	0.990	0.065	0.064	0.125	
ETHYLHEXYLACRYLATE,2-	0.990	0.925	0.992	0.705	103-11-7
FENCHONE,d-(M)	0.990	0.149	0.149	0.406	4695-62-9
FLUORANTHENE	0.990	0.049	0.039	0.656	206-44-0
FLUORENE	0.990	0.965	0.774	0.314	86-73-7
FLUOROMETHANE	0.990	1.130	1.000	0.873	
FLUOROURACIL,5- (M)	0.990	0.999	0.999	0.412	51-21-8

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
FORMYL FLUORIDE	0.990	0.848	1.000	0.577	
FREON 11, fluorotrichloromethane	0.990	1.053	1.000	0.954	
FREON 12 DICHLORODIFLUOROMETHANE	0.990	1.059	1.000	0.980	75-71-8
FREON 12, dichlorodifluoromethane	0.990	1.059	1.000	0.980	
FREONS (M)	0.990	0.644	0.644	0.980	
FURAN	0.990	0.983	1.000	0.755	110-00-9
FURFURAL	0.990	0.288	0.334	0.354	98-01-1
FUROIC ACID(M)	0.990	0.794	0.794	0.480	88-14-2
GEOSMIN (M)	0.990	0.134	0.134	0.406	19700-21-
GLYOXAL	0.502	0.490	0.888	0.297	
GUANINE (M)	0.990	0.149	0.149	0.980	73-40-5
HEPTACHLOR	0.990	0.619	0.566	0.647	76-44-8
HEPTACHLOR EPOXIDE(M)	0.976	0.030	0.030	0.162	1024-57-3
HEPTANAL	0.990	0.942	0.991	0.407	
HEPTANE ISO	0.990	1.099	1.000	0.980	31394-54-
HEPTANE(-n)	0.990	1.085	1.000	0.980	142-82-5
HEXACHLOROBENZENE	0.990	1.047	0.966	0.643	118-74-1
HEXACHLOROBUTADIENE	0.990	0.937	0.883	0.855	87-68-3
HEXACHLOROCYCLOHEXANE (GAMMA ISOMER	0.990	0.141	0.132	0.106	58-89-9
HEXACHLOROCYCLOPENTADIENE	0.990	0.886	0.826	0.803	77-47-4
HEXACHLOROETHANE	0.990	0.515	0.499	0.852	67-72-1
HEXACHLOROPENTADIENE (M)	0.990	0.088	0.088	0.860	
HEXADECANE N (M)	0.990	0.112	0.112	0.980	544-76-3
HEXAFLUOROACETONE	0.990	0.968	1.000	0.980	
HEXAFLUOROPROPENE	0.990	1.080	1.000	0.980	116-15-4
HEXAMETHYLENEDIAMINE (M)	0.971	0.724	0.724	0.213	124-09-4
HEXAMETHYLENIMINE	0.520	0.923	0.989	0.109	
HEXANAL	0.990	0.928	0.997	0.400	
HEXANE(-n)	0.990	1.084	1.000	1.000	110-54-3
HEXANOL 2 ETHYL	0.942	0.256	0.268	0.134	104-76-7
HEXANOL-1	0.963	0.322	0.355	0.180	111-27-3
HEXEN-2-ONE 5	0.979	0.885	0.915	0.347	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
HEXENE	0.990	1.119	1.000	0.980	
HEXYL ETHANOATE	0.990	0.865	0.998	0.475	
HEXYLAMINE	0.948	0.803	0.870	0.239	
HYDROFLUORIC ACID(M)	0.990	0.558	0.558	0.537	7664-39-3
HYDROGEN SULFIDE	0.990	0.333	1.000	0.882	
HYDROXY DIMETHYL ETHER (M)	0.990	0.999	0.999	0.874	
HYDROXY-1,3-CYCLOPENTADIENE 5 (M)	0.990	0.999	0.999	0.728	
HYDROXY-4-METHYLTETRAHYDROFURAN(M)	0.990	0.948	0.948	0.385	
HYDROXY-5-METHYLDIMETHYL PHTHALA(M)	0.990	0.113	0.113	0.980	
HYDROXY6METHYLPYRIDINE3 CARBOXYLI(M)	0.990	0.148	0.148	0.409	38116-61-
HYDROXYACETIC ACID	0.760	0.000	0.001	0.570	79-14-1
HYDROXYCYCLOHEXANONE 4 (M)	0.631	0.761	0.761	0.087	
HYDROXYDIMETHYL PHTHALATE 4 (M)	0.990	0.120	0.120	0.980	
HYDROXYMETHYL ACETYLENE (M)	0.990	0.999	0.999	0.980	
HYDROXYMETHYL ISOPROPYL KETONE (M)	0.990	0.999	0.999	0.662	
HYDROXYMETHYL, N-METHYLETHYL AMI(M)	0.990	0.999	0.999	0.980	
HYDROXYMETHYL-N-CHLOROMETHYLETHY(M)	0.990	0.838	0.838	0.980	
HYDROXYMETHYLPHENYL CARBAMATE N(M)	0.920	0.147	0.147	0.137	
HYDROXYMETHYLTHIOBENZENE(M)	0.990	0.320	0.320	0.790	
HYDROXYMETHYLVINYL ETHER(M)	0.990	0.490	0.490	0.905	
HYDROXYPENTANE 3 (M)	0.990	0.999	0.999	0.450	
INDANOL,5-(M)	0.990	0.128	0.128	0.980	1470-94-6
INDOLE (M)	0.990	0.708	0.708	0.980	120-72-9
IODOCOUMARAN 2 (M)	0.990	0.102	0.102	0.980	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
ISOBUTANE	0.990	1.103	1.000	0.963	
ISOBUTYL ETHANOATE	0.990	0.786	1.000	0.486	
ISOBUTYLBENZENE	0.990	1.191	1.000	0.905	
ISOBUTYLENE	0.990	1.141	1.000	0.916	
ISOCYANO 4 METHYL BENZENE *	0.980	0.422	0.384	0.198	
ISODECANOL	0.932	0.165	0.158	0.099	
ISODECYL OCTYL ESTER	0.990	1.033	1.000	0.906	
ISOPENTANE	0.990	1.101	1.000	0.954	
ISOPENTYL ETHANOATE	0.990	0.852	0.999	0.487	
ISOPENTYL METHANOATE	0.990	0.941	0.997	0.503	
ISOPHORONE	0.616	0.525	0.506	0.108	78-59-1
ISOPROPYL AMINE	0.990	0.811	1.000	0.538	75-31-0
ISOPROPYL ETHER	0.019	0.939	1.000	0.730	108-20-3
ISOPROPYL METHANOATE	0.990	0.886	1.000	0.578	
ISOPROPYL METHANOATE	0.990	0.865	1.000	0.547	
ISOPROPYL PROPANOATE	0.990	0.825	1.000	0.487	
ISOXAZOLOL,5-(AMINOMETHYL)-3- (M)	0.990	0.760	0.760	0.980	2763-96-4
LINDANE hexachlorocyclohexane	0.990	1.063	1.000	0.703	
MELAMINE (M)	0.990	0.554	0.554	0.980	108-78-1
MERCAPTOBENZOTHIAZOLE, 2	0.990	0.844	1.000	0.641	
MERCURY (M)	0.990	0.125	0.125	0.854	7439-97-6
METHACRYLIC ACID	0.990	0.068	0.091	0.194	79-41-4
METHANE	0.990	1.067	1.000	0.980	74-82-8
METHANETHIOL (M)	0.990	0.999	0.999	0.731	74-93-1
METHANOL	0.317	0.433	0.855	0.168	67-56-1
METHAPYRILENE (M)	0.990	0.094	0.094	0.980	91-80-5
METHOXYACETIC ACID	0.593	0.005	0.010	0.064	625-45-6
METHOXYACETONITRILE (M)	0.990	0.999	0.999	0.382	1738-36-9
METHOXYCHLOR	0.990	0.085	0.081	0.333	72-43-5
METHYL 1-PENTENE 2	0.990	1.125	1.000	0.980	763-29-1
METHYL 2-PROPYL ETHER	0.990	0.976	1.000	0.537	
METHYL ACETATE	0.989	0.590	0.906	0.454	79-20-9
METHYL ACRYLATE	0.990	0.748	1.000	0.478	96-33-3

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
METHYL ACRYLONITRILE (M)	0.990	0.999	0.999	0.980	126-98-7
METHYL AMINE	0.990	0.516	0.992	0.877	74-89-5
METHYL AMINOACETYLENE (M)	0.990	0.999	0.999	0.980	
METHYL AZIRIDINE 2	0.900	0.838	1.000	0.360	
METHYL BENZOATE	0.692	0.924	0.981	0.168	
METHYL BENZYL ALCOHOL 4	0.917	0.058	0.056	0.154	
METHYL BIPHENYL (-p) (M)	0.990	0.141	0.141	0.819	644-08-6
METHYL BUTANOATE	0.990	0.775	1.000	0.413	
METHYL CHLORIDE	0.990	1.040	1.000	0.840	74-87-3
METHYL CHLOROACETAMIDE N(M)	0.863	0.872	0.872	0.137	
METHYL CHLOROCARBONATE (M)	0.990	0.999	0.999	0.980	79-22-1
METHYL CHOLANTHRENE 3	0.990	1.234	0.990	0.322	56-49-5
METHYL COUMARAN 2(M)	0.990	0.145	0.145	0.811	607-71-6
METHYL CYCLOHEXANE	0.990	1.107	1.000	0.980	108-87-2
METHYL ETHER dimethyl ether	0.990	0.698	1.000	0.730	115-10-6
METHYL ETHYL ETHER	0.990	0.791	1.000	0.617	
METHYL ETHYL KETONE, 2 butanone	0.958	0.872	0.990	0.477	78-93-3
METHYL FORMATE	0.590	0.535	0.997	0.548	107-31-3
METHYL HEXANOATE	0.990	0.843	1.000	0.441	
METHYL IODIDE	0.990	0.354	1.000	0.711	74-88-4
METHYL ISOAMYL KETONE (M)	0.990	0.761	0.761	0.318	110-12-3
METHYL ISOBUTYL KETONE	0.990	0.933	0.979	0.529	108-10-1
METHYL ISOCYANATE	0.990	0.272	1.000	0.870	624-83-9
METHYL ISOPROPYL KETONE	0.986	0.922	0.991	0.523	563-80-4
METHYL MERCAPTAN	0.990	0.333	1.000	0.719	
METHYL METHACRYLATE	0.986	0.801	0.999	0.366	80-62-6
METHYL MORPHOLINE	0.435	0.365	0.475	0.078	
METHYL NAPTHALENE(1-)	0.990	1.204	0.973	0.512	90-12-0
METHYL NAPTHALENE(2-)	0.990	1.219	0.986	0.246	91-57-6
METHYL OCTANOATE	0.990	0.888	1.000	0.524	
METHYL PENTANOATE	0.990	0.813	1.000	0.417	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
METHYL PEROXIDE	0.587	0.024	0.070	0.159	
METHYL PROPANOATE	0.985	0.724	1.000	0.431	
METHYL PROPENE 2 (M)	0.990	0.999	0.999	0.980	115-11-7
METHYL PROPYL ETHER	0.990	0.848	1.000	0.598	
METHYL TERTIARY-BUTYL ETHER	0.990	0.911	1.000	0.573	1634-04-4
METHYL TETRAHYDROFURAN 2	0.990	0.914	1.000	0.357	
METHYL THIOURACIL(M)	0.990	0.283	0.283	0.753	56-04-2
METHYL-1,3-CYCLOPENTADIENE 5 (M)	0.990	0.999	0.999	0.924	26519-91-
METHYL-2,3,4-TRIHYDROQUINOLINE N(M)	0.912	0.218	0.218	0.137	
METHYL-2-AMINOETHYLAMINE(M)	0.990	0.999	0.999	0.871	109-81-9
METHYL-2-HYDROXYETHYLAMINE (M)	0.578	0.999	0.999	0.081	109-83-1
METHYL-3-ACETYLCYCLOPENTADIENE 1(M)	0.990	0.897	0.897	0.754	
METHYL-3-NITROBENZYL ALCOHOL 4 (M)	0.767	0.141	0.141	0.103	40870-59-
METHYL-4-NITROBENZYL ALCOHOL 2 (M)	0.568	0.141	0.141	0.079	23876-13-
METHYL-5-THIOACETYLDIHYDRO1,3THI (M)	0.994	0.146	0.146	0.980	
METHYLACETONITRILE (M)	0.990	0.999	0.999	0.980	75-86-5
METHYLBUTADIENE (isoprene)	0.990	1.176	1.000	0.980	
METHYLBUTYLAMINE	0.809	0.791	0.883	0.178	
METHYLCYCLOPENTANE	0.990	1.109	1.000	0.980	
METHYLENE CHLORIDE, dichloromethane	0.990	1.017	1.000	0.770	75-09-2
METHYLFURAN 2 (M)	0.509	0.999	0.999	0.073	534-22-5
METHYLISOBORNEOL,2-(M)	0.990	0.141	0.141	0.794	NA
METHYLPHENYL CARBAMATE N(M)	0.906	0.320	0.320	0.137	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
METHYL-PHENYLETHYLAMINE N(M)	0.990	0.401	0.401	0.587	589-08-2
METHYL-p'-METHYLTRIPHENYL PHOSPH(M)	0.990	0.079	0.079	0.862	
METHYLSTYRENE (-4)	0.990	1.217	1.000	0.767	98-93-9
METHYLTIN TRICHLORIDE (M)	0.470	0.105	0.105	0.070	993-16-8
METHYL-TRIHYDRO-1,3-THIAZOLE 4 (M)	0.990	0.914	0.914	0.316	
MITOMYCIN C(M)	0.990	0.058	0.058	0.980	50-07-7
MNNG(M)	0.990	0.199	0.199	0.980	70-25-7
MONOCHLORODIFLUOROMETHANE	0.990	1.023	1.000	0.990	75-45-6
MORPHOLINE	0.990	0.148	0.207	0.437	110-91-8
MUSTARD GAS(M)	0.990	0.146	0.146	0.406	505-60-2
NAPHTHALENE	0.990	1.239	0.994	0.506	
NAPHTHALENE ACETIC ACID 2 METHYL,	10.990	0.863	0.830	0.567	
NAPHTHOQUINONE-1,4(M)	0.958	0.146	0.146	0.164	130-15-4
NICKEL CYANIDE (M)	0.990	0.817	0.817	0.284	557-19-7
NITRO m XYLENE, 2	0.990	0.779	0.923	0.455	
NITRO-4-METHYLBENZOATE 3(M)	0.990	0.128	0.128	0.980	
NITROANILINE P	0.990	0.000	0.000	0.411	100-01-6
NITROBENZENE	0.808	0.305	0.394	0.228	98-95-3
NITROBENZENESULFONYL CHLORIDE P(M)	0.990	0.114	0.114	0.458	98-74-8
NITROBENZYL ALCOHOL P (M)	0.990	0.149	0.149	0.356	619-73-8
NITROBIPHENYL,4-	0.976	0.044	0.046	0.075	92-93-3
NITROCELLULOSE (M)	0.990	0.000	0.000	0.558	9004-70-0
NITROETHANE	0.225	0.412	0.964	0.161	
NITROGEN MUSTARD N-OXIDE(M)	0.990	0.139	0.139	0.794	126-85-2
NITROMETHANE	0.990	0.255	0.954	0.883	75-52-5
NITROMETHYLBENZENE	0.990	0.463	0.570	0.270	
NITROPROPANE 2	0.985	0.531	0.989	0.437	79-46-9
NITROSOBENZYL ALCOHOL 4 (M)	0.901	0.405	0.405	0.136	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
NITROSOPYRROLIDINE N (M)	0.990	0.997	0.997	0.980	930-55-2
NITROTOLUENE (-p)	0.990	0.339	0.417	0.451	99-99-0
NITROTOLUENE, m	0.990	0.475	0.585	0.279	
NITROTOLUENE, o	0.990	0.534	0.657	0.296	
NITROTOLUENE, o	0.988	0.534	0.657	0.266	
NONANAL	0.990	0.938	0.959	0.558	
NONANOL, n	0.856	0.099	0.103	0.091	
NONYLPHENOL(M)	0.990	0.115	0.115	0.794	25154-52-
OCTAMETHYLPYROPHOSPHORAMIDE (M)	0.990	0.082	0.082	0.980	152-16-9
OCTANAL	0.990	0.946	0.979	0.465	
OCTANE	0.990	1.086	1.000	0.980	111-65-9
OCTANOL 1	0.990	0.184	0.195	0.240	111-87-5
OCTANOL 2	0.983	0.381	0.398	0.136	
OCTANOL 3	0.990	0.514	0.536	0.104	
OCTANOL 4	0.990	0.446	0.466	0.118	
OIL (decane)	0.990	1.088	1.000	0.951	
OXAMIC ACID(M)	0.990	0.999	0.999	0.317	471-47-6
PARABROMOPHENOL (M)	0.925	0.139	0.139	0.135	106-41-2
PARAFORMALDEHYDE (M)	0.990	0.000	0.000	0.558	30525-89-
PARALDEHYDE	0.795	0.717	0.991	0.232	123-63-7
PCB 1016 (monochlorobiphenyl)	0.990	1.204	1.000	0.345	12674-11-
PCB 1221 (monochlorobiphenyl)	0.990	1.204	1.000	0.418	11104-28-
PCB 1232 (dichlorobiphenyl)	0.990	1.177	1.000	0.543	11141-16-
PCB 1242 (trichlorobiphenyl)	0.990	1.075	0.929	0.488	53469-21-
PCB 1248 (quatrochlorobiphenyl)	0.990	1.142	1.000	0.640	12672-29-
PCB 1254(pentachlorobiphenyl	0.990	0.698	0.618	0.813	11097-69-
PCB 1260 (hexachlorobiphenyl)	0.990	0.504	0.450	0.791	11096-82-
PCB'S (Aroclors)	0.990	1.142	1.000	0.507	
PENTACHLOROBENZENE	0.990	1.091	1.000	0.796	608-93-5
PENTACHLOROETHANE	0.990	0.991	0.966	0.877	76-01-7

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
PENTACHLORONITROBENZENE	0.990	0.774	0.839	0.405	
PENTACHLOROPHENOL	0.990	0.092	0.090	0.298	87-86-5
PENTADIENE 1,2	0.990	1.191	1.000	0.855	
PENTAERYTHRITOL TETRANITRATE (M)	0.976	0.067	0.067	0.162	78-11-5
PENTANAL	0.990	0.904	0.999	0.406	
PENTANE	0.990	1.082	1.000	0.925	
PENTYL PROPANOATE	0.990	0.868	1.000	0.537	
PENTYLAMINE	0.903	0.822	0.917	0.254	
PENTYLBENZENE	0.990	1.173	1.000	0.766	
PENTYLCYCLOPENTANE	0.990	1.103	1.000	0.980	
PERCHLOROMETHYL MERCAPTAN(M)	0.990	0.132	0.132	0.980	594-42-3
PERYLENE (M)	0.990	0.099	0.099	0.853	198-55-0
PHENANTHRENE	0.990	0.279	0.222	0.193	85-01-8
PHENOL,3-(1,1-DIMETHYLETHYL)- (M)	0.990	0.558	0.558	0.794	585-34-2
PHENOTHIAZINE (M)	0.990	0.125	0.125	0.874	92-84-2
PHENYL ISOCYANATE(M)	0.990	0.674	0.674	0.855	103-71-9
PHENYLACETIC PEROXIDE (M)	0.917	0.149	0.149	0.137	
PHENYLCYCLOHEXANONE 4	0.990	1.029	0.914	0.826	4894-75-1
PHENYLHYDRAZINE (M)	0.990	0.860	0.860	0.314	100-63-0
PHENYLPHENOL P	0.990	0.001	0.001	0.710	92-69-3
PHENYLTHIOUREA (M)	0.990	0.149	0.149	0.863	103-85-5
PHOSGENE (decomposes)	0.990	0.868	1.000	0.872	75-44-5
PHOSPHINE	0.990	0.213	1.000	0.996	7803-51-2
PHTHALATE, DI N BUTYL-	0.971	0.006	0.006	0.095	
PHTHALATE, DI N OCTYL	0.990	0.042	0.044	0.574	
PHTHALIC ACID	0.990	0.714	0.924	0.858	88-99-3
PHTHALIMIDE	0.990	0.850	0.957	0.854	85-41-6
PICOLINE(2-) (M)	0.990	0.999	0.999	0.398	109-06-8
PINENE(alpha-)	0.990	1.165	1.000	0.890	80-56-8
PIPERAZINE	0.990	0.031	0.042	0.339	110-85-0
POLYCYCLIC KETONE O (M)	0.990	0.000	0.000	0.948	
PROPANAL	0.902	0.813	1.000	0.436	
PROPANE	0.990	1.075	1.000	0.880	74-98-6

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
PROPANE),2,2'-OXYBIS(2-CHLORO- (M)	0.990	0.138	0.138	0.980	39638-32-
PROPANOIC ACID	0.104	0.105	0.163	0.064	79-09-4
PROPANOL	0.595	0.305	0.421	0.185	
PROPANOL ISO	0.451	0.740	0.926	0.190	67-63-0
PROPENAL	0.943	0.855	1.000	0.487	
PROPENE	0.990	1.144	1.000	0.980	
PROPENYL BENZENE	0.990	1.217	1.000	0.860	
PROPIONALDEHYDE	0.990	0.813	0.999	0.406	123-38-6
PROPIONIC ACID	0.990	0.066	0.102	0.381	79-09-4
PROPIONITRILE (M)	0.990	0.999	0.999	0.580	107-12-0
PROPYL ACETATE ISO	0.990	0.786	1.000	0.453	108-21-4
PROPYL BUTANOATE	0.990	0.843	1.000	0.475	
PROPYL ETHER	0.990	0.921	1.000	0.716	111-43-3
PROPYL METHANOATE	0.990	0.714	1.000	0.506	
PROPYL PROPANOATE	0.990	0.813	1.000	0.446	
PROPYL THIOURACIL(M)	0.990	0.140	0.140	0.921	51-52-5
PROPYL(-n) ACETATE	0.990	0.773	0.999	0.448	109-60-4
PROPYL(-n) BENZENE	0.990	1.191	1.000	0.781	103-65-1
PROPYL-3-METHOXY PYRAZINE,2- ISO(M)	0.990	0.149	0.149	0.980	25773-40-
PROPYLAMINE	0.563	0.778	0.971	0.249	107-10-8
PROPYLCYCLOPENTANE	0.990	1.105	1.000	0.980	
PROPYLENE	0.990	1.144	1.000	0.980	115-07-1
PROPYLENE CHLOROHYDRIN	0.274	0.338	0.383	0.069	
PROPYLENE OXIDE	0.990	0.841	1.000	0.600	75-56-9
PROPYLENIMINE 1,2 2 methyl aziri	0.609	0.792	0.944	0.239	75-55-8
PROPYN-1-OL 2(PROPARLGYL)	0.550	0.271	0.321	0.225	107-19-7
PROPYNE	0.990	1.200	1.000	0.853	
PYRENE	0.990	0.046	0.036	0.113	129-00-0
PYRIDINE	0.956	0.608	0.600	0.255	110-86-1
PYRROLIDINE	0.198	0.814	0.936	0.072	
QUINALDINE(M)	0.990	0.999	0.999	0.853	91-63-4
RESERPINE (M)	0.990	0.000	0.000	0.648	50-55-5
s ACETYLMERCAPTOSUCCINIC ACID	0.318	0.030	0.050	0.069	

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
S4CHL.CYCLOHEX.00DIMETH .PHOS.DIT(M)	0.990	0.052	0.052	0.342	
SACCHARIN (M)	0.990	0.133	0.133	0.850	81-07-2
SAFROLE (M)	0.990	0.144	0.144	0.406	94-59-7
sec BUTYLBENZENE	0.990	1.187	1.000	0.860	
SILVEX	0.990	1.106	1.000	0.774	93-72-1
SODIUM DODECYL SULFATE (M)	0.988	0.081	0.081	0.195	151-21-3
SODIUM DODECYLBENZENE SULFONATE(M)	0.908	0.083	0.083	0.121	25155-30-
STREPTOZOTOCIN (M)	0.990	0.092	0.092	0.980	18883-66-
STYRENE	0.990	1.229	1.000	0.800	100-42-5
STYRENE OXIDE	0.990	0.883	0.830	0.341	
SULFIDE (M)	0.990	0.999	0.999	0.649	
TAMARON (METHAMIDIPHOS)	0.306	0.430	0.672	0.091	
TARS(M)	0.990	0.025	0.025	0.642	
t-BUTYL HYDROPEROXIDE	0.497	0.289	0.404	0.199	75-91-2
TERPINEOL, ALPHA	0.990	1.008	0.984	0.473	
tert BUTANOL	0.630	0.856	0.989	0.231	
tert-AMYLBENZENE	0.990	1.173	1.000	0.870	
tert-BUTYLBENZENE	0.990	1.192	1.000	0.855	
TETRACHLOROAQUINONE (M)	0.990	0.102	0.102	0.980	
TETRACHLOROBENZENE(1,2, 3,4)	0.990	1.101	1.000	0.700	634-66-2
TETRACHLOROBENZENE(1,2, 3,5)	0.990	1.101	1.000	0.732	634-90-2
TETRACHLOROBENZENE(1,2, 4,5)	0.990	1.101	1.000	0.732	95-94-3
TETRACHLORODIBENZOFURAN (2,3,7,8)(M)	0.990	0.072	0.072	0.332	51207-31-
TETRACHLORODIBENZO-p-DIOXIN(2,3,7,8)	0.990	0.109	0.101	0.173	1746-01-6
TETRACHLOROETHANE(1,1,1 ,2) (M)	0.990	0.141	0.141	0.459	630-20-6
TETRACHLOROETHANE(1,1,2 ,2)	0.990	1.015	0.999	0.397	79-34-5
TETRACHLOROETHENE	0.990	1.048	1.000	0.917	127-18-4
TETRACHLOROPHENOL(2,3,4 ,6)	0.447	1.024	1.000	0.091	58-90-2

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
TETRACHLOROPHENOL(2,3,5,6)	0.990	0.010	0.010	0.980	935-95-5
TETRACHLOROPROPENE(1,1,2,3) (M)	0.990	0.135	0.135	0.831	10436-39-
TETRADECANE	0.990	1.089	1.000	0.896	629-59-4
TETRAETHYL LEAD	0.990	0.958	0.889	0.980	78-00-2
TETRAETHYLENE GLYCOL (M)	0.892	0.128	0.128	0.117	112-60-7
TETRAETHYLENE PENTANE	0.990	1.183	1.000	0.881	
TETRAETHYLPYROPHOSPHATE (M)	0.990	0.080	0.080	0.980	107-49-3
TETRAFLUOROETHENE	0.990	1.080	1.000	0.980	
TETRAFLUOROMETHANE	0.990	1.037	1.000	0.980	
TETRAHYDROBENZALDEHYDE	0.912	0.635	0.641	0.213	
TETRAHYDROFURAN	0.830	0.860	1.000	0.322	109-99-9
TETRAHYDRONAPHTHALENE,1,2,3,4- (M)	0.887	0.452	0.452	0.794	119-64-2
TETRAHYDROPYRAN	0.980	0.898	1.000	0.381	142-68-7
TETRAHYDROTHIOPHENE	0.990	0.692	1.000	0.566	
TETRALIN	0.990	1.189	1.000	0.632	
TETRANITROMETHANE	0.990	0.267	1.000	0.852	509-14-8
THIOACETAMIDE (M)	0.990	0.999	0.999	0.375	62-55-5
THIOBENZYL ALCOHOL P (M)	0.887	0.588	0.588	0.136	100-53-8
THIOBISETHANE, 1,1'	0.990	0.692	1.000	0.763	
THIOCYANATE (TOTAL AS SCN-) (M)	0.990	0.642	0.642	0.894	NA
THIOMETHANOL (M)	0.990	0.999	0.999	0.499	74-93-1
THIOPHENOL(M)	0.659	0.826	0.826	0.933	108-98-5
THIOPROPIONAMIDE 2(M)	0.696	0.948	0.948	0.097	
THIOUREA	0.892	0.011	0.024	0.472	62-56-6
THIRAM (M)	0.990	0.105	0.105	0.980	137-26-8
THYMINE (M)	0.990	0.556	0.556	0.806	65-71-4
TOLUENE	0.990	1.215	1.000	0.804	108-88-3
TOLUENE24DIAZOBIS-METATOLUENEDIA(M)	0.986	0.011	0.011	0.188	
TOLUENESULFONYL CHLORIDE	0.604	0.046	0.047	0.068	
TOLUIC ALDEHYDE	0.990	0.513	0.478	0.382	122-78-1

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
TOLUIDINE (-0)	0.459	0.159	0.152	0.052	95-53-4
TOLUIDINE HYDROCHLORIDE,o-(M)	0.990	0.258	0.258	0.980	636-21-5
TOLUIDINE P	0.850	0.274	0.262	0.208	106-49-0
TOXAPHENE	0.990	0.054	0.050	0.735	8001-35-2
trans 1,4 DIMETHYLCYCLOHEXANE	0.990	1.117	1.000	0.980	
trans 2 BUTENAL	0.387	0.911	1.000	0.267	
trans 2 HEPTENE	0.990	1.121	1.000	0.980	
trans 2 HEXENAL	0.856	0.963	1.000	0.295	
trans 2 OCTENAL	0.990	0.985	0.993	0.381	
trans, trans 2,4 HEXADIENAL	0.233	0.996	1.000	0.151	
TRIBROMOMETHYLPHOSPHATE (M)	0.980	0.052	0.052	0.169	
TRIBUTYL PHOSPHOROTRITHIOATE SSS	0.990	.	.	0.334	78-48-8
TRIBUTYL TIN ACETATE	0.990	0.929	0.980	0.789	
TRIBUTYLPHOSPHATE	0.990	1.073	0.988	0.980	126-73-8
TRICHLORO(1,1,2)TRIFLUOROETHANE(M)	0.990	0.131	0.131	0.980	76-13-1
TRICHLORO-1,2,2-TRIFLUOROETHANE,1,1	0.990	1.033	1.000	0.980	76-13-1
TRICHLORO-1,3,5-TRIAZINE 2,4,6 (M)	0.990	0.133	0.133	0.552	108-77-0
TRICHLOROANISOLE 2,3,6 (M)	0.990	0.119	0.119	0.980	50375-10-
TRICHLOROBENZENE 1,2,3	0.990	1.114	1.000	0.808	87-61-6
TRICHLOROBENZENE 1,2,4	0.990	1.114	1.000	0.637	120-82-1
TRICHLOROBENZENE 1,3,5	0.990	1.114	1.000	0.877	108-70-3
TRICHLOROBUTANE 1,2,3 (M)	0.990	0.144	0.144	0.980	18338-40-
TRICHLOROETHANE 1,1,1	0.990	1.037	1.000	0.913	71-55-6
TRICHLOROETHANE 1,1,2	0.990	1.025	1.000	0.597	79-00-5
TRICHLOROETHYLENE	0.990	1.053	1.000	0.866	79-01-6
TRICHLOROFLUOROMETHANE	0.990	1.027	1.000	0.968	75-69-4
TRICHLOROPHENOL 2,4,5	0.964	0.111	0.108	0.086	95-95-4
TRICHLOROPHENOL 2,4,6	0.990	0.135	0.132	0.167	88-06-2
TRICHLOROPROPANE 1,1,1	0.990	1.048	1.000	0.897	7789-89-1
TRICHLOROPROPANE(1,1,2)	0.990	1.037	1.000	0.897	598-77-6

TABLE 2--Continued

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
TRICHLOROPROPANE(1,2,2)	0.990	1.047	1.000	0.897	3175-23-3
TRICHLOROPROPANE(1,2,3)	0.990	1.048	1.000	0.894	96-18-4
TRICHLOROPROPENE (1,1,2)(M)	0.990	0.228	0.228	0.795	
TRICOSANE N(M)	0.990	0.133	0.133	0.301	629-50-5
TRIETHYLAMINE	0.990	0.937	1.000	0.379	121-44-8
TRIETHYLENE GLYCOL(M)	0.846	0.150	0.150	0.111	112-27-6
TRIETHYLPHOSPHOROTHIOATE,o,o,o-(M)	0.989	0.126	0.126	0.794	126-68-1
TRIFLUOROETHANE(1,1,1)	0.990	1.059	1.000	0.980	
TRIFLUOROMETHANE	0.990	1.057	1.000	0.980	
TRIFLURALIN	0.990	0.086	0.116	0.291	
TRIISOBUTYLENE	0.990	1.117	1.000	0.980	
TRIISOPROPYLAMINE	0.990	1.026	1.000	0.715	
TRIMELLITIC ANHYDRIDE (M)	0.629	0.129	0.129	0.087	552-30-7
TRIMETHYL BENZENE, 123	0.990	1.200	1.000	0.713	
TRIMETHYL-4-NITROANILINE 2,3,5 (M)	0.990	0.135	0.135	0.831	
TRIMETHYLAMINE	0.990	0.811	1.000	0.464	75-50-3
TRIMETHYLBENZENE (1,3,5)	0.990	1.200	1.000	0.766	108-67-3
TRIMETHYLPENTANE 2,2,4	0.990	1.116	1.000	1.000	540-84-1
TRIMETHYLSILANOL	0.990	0.533	1.000	0.980	
TRINITROBENZENE,sym-(M)	0.990	0.118	0.118	0.712	99-35-4
TRINITROTOLUENE(2,4,6)	0.223	0.004	0.009	0.120	118-96-7
TRIPHENYL PHOSPHINE (M)	0.990	0.094	0.094	0.321	603-35-0
TRIPHENYLMETHANE (M)	0.990	0.103	0.103	0.980	516-73-3
TRIPHENYLPHOSPHINE NICKEL CARBONM)	0.990	0.037	0.037	0.722	
TRIS (1-AZIRIDINYL) PHOSPHINESU(M)	0.990	0.130	0.130	0.379	52-24-4
TRIS (2,3-DIBROMOPROPYL)PHOSPHA(M)	0.990	0.000	0.000	0.980	126-72-7
TRISODIUM NITRILOTRIACETATE (M)	0.990	0.128	0.128	0.980	5064-31-3

TABLE 2--Concluded

Compound	FR	Fm25D	Fm305	Fe[1]	CAS
TRYPAN BLUE(M)	0.990	0.000	0.000	0.853	72-57-1
URACIL (M)	0.990	0.794	0.794	0.857	66-22-8
URACIL MUSTARD (M)	0.990	0.099	0.099	0.853	66-75-1
UREA	0.990	0.016	0.030	0.582	57-13-6
URETHANE	0.990	0.024	0.039	0.370	51-79-6
VALERIC ACID (M)	0.990	0.963	0.963	0.287	109-52-4
VINYL ACETATE	0.990	0.748	1.000	0.592	108-05-4
VINYL ACETYLENE	0.990	1.232	1.000	0.890	
VINYL BROMIDE	0.990	0.629	1.000	0.849	
VINYL CHLORIDE	0.990	1.081	1.000	0.971	75-01-4
VINYL DIHYDROPYRAN	0.990	0.935	1.000	0.554	
VINYL METHYL ETHER	0.990	0.831	1.000	0.590	
VINYLCYCLOHEXENE 4(M)	0.990	0.860	0.860	0.980	100-40-3
VINYLIDENE CHLORIDE	0.990	1.061	1.000	0.889	75-35-4
XYLENE	0.990	1.206	1.000	0.788	1330-20-7
XYLENE(-m)	0.990	1.206	1.000	0.821	108-38-3
XYLENE(-o)	0.990	1.206	1.000	0.787	95-47-6
XYLENE(-p)	0.990	1.206	1.000	0.824	106-67-9
XYLIDINE dimethylaniline	0.606	0.131	0.124	0.074	
XYLYL CHLORIDE M (M)	0.990	0.310	0.310	0.592	620-19-9
XYLYL CHLORIDE O (M)	0.990	0.310	0.310	0.592	552-45-4

* Molecular structure only approximate.
M) fraction measured (fm) estimated from Mwt correlation.

[1] The Fe values listed in Table 2 are Fe values for emissions from both the individual drain system and the treatment process. Use these Fe values with Section 2.5.1).

TABLE 3 OF APPENDIX J--FE VALUES FOR EMISSIONS FROM BOTH THE INDIVIDUAL DRAIN SYSTEM AND THE TREATMENT PROCESS
(use with Section 2.5.1)

Henry's Law Constant	Fe Value
0.00025	0.001
0.00051	0.002
0.00076	0.003
0.00127	0.005
0.00178	0.007
0.00254	0.010
0.00381	0.015
0.00508	0.020
0.00635	0.25
0.00762	0.030
0.00890	0.035
0.01017	0.040
0.01144	0.045
0.02327	0.050
0.07862	0.060
0.13396	0.070
0.18931	0.080
0.24465	0.090
0.30	0.10
0.54	0.11
0.77	0.12
1.005	0.13
1.24	0.14
1.48	0.15
1.71	0.16
1.94	0.17

TABLE 3--Continued

Henry’s Law Constant	Fe Value
2.18	0.18
2.42	0.19
2.65	0.20
2.88	0.21
3.12	0.22
3.36	0.23
3.59	0.24
3.82	0.25
4.06	0.26
4.30	0.27
4.53	0.27
4.53	0.28
4.76	0.29
5	0.30
6.1	0.31
8.3	0.31
10.5	0.35
12.7	0.37
14.9	0.39
17.1	0.41
19.3	0.43
22.4	0.45
27.9	0.47
33.4	0.49
39	0.51
44.5	0.53

TABLE 3--Concluded

Henry’s Law Constant	Fe Value
50	0.55
83.3	0.57
116.7	0.59
150	0.61
183.3	0.63
216.7	0.65
250	0.67
283.3	0.69
316.7	0.71
350	0.73
383.3	0.75
416.7	0.77
450	0.79
483.3	0.81
516.7	0.83
550	0.85
1003.8	0.87
1457.5	0.89
1911.5	0.91
2365.4	0.93
2819.2	0.95
3273.1	0.97
3500	0.98

TABLE 4 OF APPENDIX J--FET VALUES FOR COMPOUNDS WITH HENRY=S LAW CONSTANTS AT 25^{0} C GREATER THAN OR EQUAL TO 0.1 (Y/X) ATMOSPHERE PER MOLE FRACTION (use with Section 2.5.3)

Compound	Y/X	Fet	CAS
1 BROMO 2 CHLORO 2 BUTENE	311.66	0.544	
1 BUTYENE	1048.21	0.733	
1 ETHYL 4 METHYLBENZENE	277.78	0.511	
1 HEPTANOL	1.03	0.186	
1 HEPTYNE	3703.67	0.654	
1 HEXYNE	2222.20	0.675	
1 ISOCYANO 3-METHYLBENZENE	1.54	0.210	
1 ISOPROPYL 4 METHYLBENZENE	427.35	0.495	
1 METHYLCYCLOHEXENE	4273.46	0.664	
1 METHYLNAPHTHALENE	14.25	0.325	
1 NONYNE	8051.45	0.603	
1 OCTENE	50505.00	0.729	
1 OCTYNE	4629.58	0.624	
1 PENTYNE	1355.00	0.699	
1,1 DIETHOXYETHANE	5.56	0.320	
1,1,3 TRIMETHYLCYCLOPENTANE	86805.00	0.802	
1,1-DIFLUOROETHANE	1133.78	0.699	
1,2 DIETHOXYETHANE	3.47	0.309	
1,2,4,5 TETRAMETHYLBENZENE	1388.88	0.512	
1,3-DIOXOLANE	1.36	0.232	646-06-0
1,4 PENTADIENE	6613.69	0.742	
1,5 HEXADIENE	7507.43	0.702	
1-NITROPROPANE	4.63	0.374	
1-PENTANOL	69.44	0.576	
1-PENTENE	22222.00	0.812	
1-PROPOXY 2-PROPANOL	0.13	0.046	
2 BUTEN 1 0L	0.19	0.095	
2 HEPTANONE	8.05	0.356	
2 METHYL 1 BUTANOL	0.78	0.201	
2 METHYL 2 BUTENE	12346.00	0.782	
2 METHYL 2 PENTANOL	1.79	0.257	
2 METHYL 3 PENTANOL	1.92	0.241	
2 METHYLHEXANE C7H16	29239.00	0.737	
2 METHYLNAPHTHALENE	22.22	0.344	
2 NONANONE	20.58	0.366	
2 OCTANONE	10.48	0.348	
2 PENTANONE	3.47	0.350	
2 PENTENE	12920.00	0.779	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
2 PROPYLBENZENE	71.22	0.435	
2 UNDECANONE	34.72	0.353	
2-(1-METHOXY))-1-PROPANOL	0.26	0.080	
2,2 DIMETHYL PROPANOIC ACID	0.16	0.062	
2,2 DIMETHYLBUTANE C6H14	1700.00	0.654	
2,2 DIMETHYLPENTANE	173610.00	0.881	
2,2,5 TRIMETHYLHEXANE C9H20	191570.00	0.795	
2,3 DIMETHYL 1,3 BUTADIENE	2645.48	0.671	
2,3 DIMETHYLBUTANE C6H14	71224.00	0.856	
2,3 DIMETHYLBUTANOL	1.85	0.259	
2,3 DIMETHYLPENTANE C7H16	95784.00	0.835	
2,3,4 TRIMETHYLPENTANE C8H18	104820.00	0.793	
2,3-DIMETHYLPYRIDINE	0.40	0.110	
2,4 DIMETHYLPENTANE C7H16	163400.00	0.875	
2,4,5 T	1.00	0.000	93-76-5
2,4-DIMETHYLPYRIDINE	0.37	0.105	
2,5-DIMETHYLPYRIDINE	0.46	0.122	
2,6,DIMETHYL2,5-HEPTADIEN4-0NE	11.00	0.336	
2,6-DIMETHYL 2,5-HEPTADIEN 4-ONE *	4.17	0.278	
2,6-DIMETHYLPYRIDINE	0.56	0.137	
2-CHLORO 2-METHYLBUTANE	220.00	0.589	
2-ETHYL 3-METHOXYPYRAZINE	0.82	0.151	
2-ETHYLPYRAZINE	0.14	0.049	
2-ETHYLPYRIDINE	0.58	0.141	
2-FLUOROPROPANE	13423.00	0.818	
2-ISOBUTYL 3-METHOXYPYRAZINE	2.78	0.256	
2-ISOBUTYLPYRAZINE	0.28	0.071	
2-METHYL PENTANE C6H14	1670.00	0.651	
2-METHYLPYRAZINE	0.12	0.052	
2-PENTANOL	0.82	0.205	
3 METHYL 1 BUTENE	29239.00	0.832	
3 METHYL PYRIDINE	0.43	0.131	
3 METHYLHEPTANE C8H18	205760.00	0.848	
3 METHYLHEXANE C7H16	132270.00	0.860	
3,3 DIMETHYLPENTANE C7H16	102880.00	0.844	
3,4-DIMETHYLPRYIDINE	0.21	0.068	
3,5-DIMETHYLPYRIDINE	0.37	0.105	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
3-ETHYLPRYIDINE	0.58	0.141	
3-HEXANOL	2.78	0.294	
3-PENTEN-2-OL	1.01	0.230	
4 METHYL 1 PENTENE	34722.00	0.800	
4 METHYL 2 PENTANOL	2.53	0.264	
4 METHYL 2 PENTANONE	0.51	0.145	
4 METHYLOCTANE C9H20	555550.00	0.868	
4-ETHYLPYRIDINE	0.46	0.123	
4-METHYLPYRIDINE	0.33	0.109	
5 METHOXY 2 PENTANONE	0.67	0.142	
ACENAPHTHENE	428.33	0.498	83-32-9
ACENAPHTHYLENE	6.33	0.286	208-96-8
ACETAL	19.61	0.398	
ACETALDEHYDE	4.87	0.449	75-07-0
ACETATE (M)	400.00	0.504	
ACETIC ACID	0.31	0.120	64-19-7
ACETIC ANHYDRIDE	0.33	0.214	108-24-7
ACETONE	1.39	0.261	67-64-1
ACETONITRILE	1.11	0.333	75-05-8
ACETOPHENONE	0.51	0.127	96-86-2
ACETYL CHLORIDE	11.00	0.531	79-36-5
ACETYL DIETHYLMALONATE	1.08	0.156	
ACETYLENE	70.00	0.711	74-86-2
ACETYLFURAN 2 *	6.11	0.382	1192-62-7
ACETYLMETHYLPHTHALATE 4	0.94	0.114	
ACETYLPYRIDINE 3	16833.00	0.882	1122-54-9
ACIFLUORFEN	83.89	0.300	
ACROLEIN	4.57	0.393	107-02-8
ACRYLONITRILE	5.44	0.393	107-13-1
ADAMANTANE DICHLORIDE	57.78	0.392	
AFLATOXINS(M)	16.67	0.295	1402-68-2
ALDICARB	16.67	0.000	116-06-3
ALDRIN	27.56	0.269	509-00-2
ALKYLIMINE CARBOXYLIC ACID N,SUB(M)	0.56	0.089	
ALLYL ALCOHOL	1.00	0.276	107-18-6
ALLYL CHLORIDE	515.00	0.728	107-05-1
ALLYL ETHER, diallyl ether	125.55	0.535	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
ALPHA METHYL STYRENE	328.33	0.588	98-83-9
ALPHA METHYL STYRENE DIMERS	655.55	0.370	
alpha-CHLORO-beta-METHYLNAPHTHALENE	490.55	0.441	86-52-2
ALPHA-HYDROXYACETALDEHYDE	5.28	0.515	
ALPHA-HYDROXYADIPIMIDE (M)	0.90	0.135	
AMINO-2-CHLOROTOLUENE 4	388.89	0.563	
AMINO-3-CHLORO-5-PHENYLCYCLOHEXA(M)	0.22	0.049	
AMINO-4-CHLORO-6-CYANOPYRIDINE 2(M)	17.22	0.332	
AMINO-4'-CHLOROBIPHENYL 4(M)	1398300.00	0.887	
AMINO-4-CHLOROPYRIDINE 2(M)	176.68	0.463	1072-98-6
AMINO-4-NITROBENZYL ALCOHOL 2 (M)	0.34	0.072	
AMINO-4-NITROTOLUENE 2	422.77	0.621	99-55-8
AMINO-5-CHLOROPYRIDINE 2(M)	14.28	0.342	1072-98-6
AMINOBENZOIC ACID (-p) (M)	0.22	0.058	150-13-0
AMINOCYCLOHEXANE	13.78	0.416	108-91-8
AMINOMETHYL-3-ISOXAZOLOL 5 (M)	4.17	0.287	2763-96-4
AMINOPHENOL(-o)	0.20	0.082	95-55-6
AMINOPHENOL(-p)	1.09	0.180	101-80-4
AMINO-p'-METHYLAZOBENZENE P (M)	588.88	0.476	
AMINOPROPIONITRILE 3 (M)	0.51	0.163	151-18-8
AMITROLE (M)	0.22	0.081	61-82-5
AMMONIA	18.22	0.732	7664-41-7
AMPHETAMINE(M)	7.50	0.305	60-15-1
AMYL ACETATE(-n)	25.78	0.313	628-63-7
ANETHOLE (M)	16.67	0.371	104-46-1
ANISOLE	231.48	0.584	100-66-3
ANTHRACENE	39.68	0.384	120-12-7
ARAMITE (M)	16.67	0.292	140-57-8
AURAMINE (M)	10739.00	0.547	492-80-8
AZASERINE (M)	2.38	0.206	115-02-6
AZEPINE (M)	462.77	0.534	111-49-9
AZIRIDINE ethylene imine	25.22	0.630	151-56-4

TABLE 4--Continued

Compound	Y/X	Fet	CAS
BENXENEDICARBOXYLIC ACID DIHEPTYL E	128.33	0.296	
BENZ(c)ACRIDINE (M)	611.11	0.533	225-51-4
BENZAL CHLORIDE	411.66	0.616	98-87-3
BENZALDEHYDE	2.35	0.283	100-52-7
BENZALKONIUM CHLORIDE (M)	0.11	0.022	
BENZEN SULFONATE (M)	1555.54	0.602	
BENZENE	308.34	0.592	71-43-2
BENZETHONIUM CHLORIDE (M)	1.24	0.089	121-54-0
BENZIDINE DIHYDROCHLORIDE(M)	588880.00	0.936	531-85-1
BENZO(B)FLUORANTHENE	1.12	0.117	205-99-2
BENZO(j)FLUORANTHENE (M)	611.11	0.525	205-82-3
BENZODIOXANE-1,3 (M)	0.26	0.046	
BENZOFLUORANTHENE,3,4- (M)	611.11	0.368	205-99-2
BENZOFURAN 2,3	13.17	0.370	
BENZOIC ACID, 4 METHYL	0.38	0.093	
BENZONITRILE	0.76	0.170	100-47-0
BENZOPHENONE	506.11	0.454	119-61-9
BENZOPYRENE 3,4 (M)	7.00	0.250	50-32-8
BENZOQUINONE,p- (M)	400.00	0.750	106-51-4
BENZOTHIAZOLE *	7.50	0.341	95-16-9
BENZOTRICHLORIDE	54.50	0.409	98-07-7
BENZOYL CHLORIDE	10.44	0.391	98-88-4
BENZYL CHLORIDE	17.72	0.395	100-44-7
BENZYL METHYL ETHER	75.00	0.469	538-86-3
BHC,alpha-	227.22	0.412	319-84-6
BHC,beta-	638.88	0.472	319-85-7
BHC,delta-	75.56	0.340	319-86-8
BICYCLO(4,2,0) OCTA 1.3.5 TRIENE	307.22	0.561	
BICYCLO[2.2.1]-2,5-HEPTADIENE DI(M)	4388.85	0.681	
BIPHENYL	22.67	0.345	92-52-4
BIS (2-CHLOROETHOXY) METHANE	0.12	0.028	111-91-1
BIS(1,1,2,2-TETRACHLOROPROPYL) ETHE	2416600.00	0.872	
BIS(2-CHLOROETHYL)ETHER	0.72	0.162	111-44-4
BIS(2-CHLOROISOPROPYL)ETHER	6.11	0.295	108-60-1
BIS(CHLOROMETHYL)ETHER	5.02	0.421	542-88-1

TABLE 4--Continued

Compound	Y/X	Fet	CAS
BISPHENOL(A)	126.67	0.362	80-05-7
BROMACIL	7609700.00	0.631	
BROMO-(1)-CHLOROETHANE-2	9944300.00	0.995	107-04-0
BROMO-3-CHLOROBUTADIENE 2	469.44	0.590	
BROMO-4-CHLORO-6-CYANOBENZYL ALC(M)	1.05	0.136	
BROMO-4-CHLOROCYCLOHEXANE 1	5544.39	0.692	
BROMO-4-CYANOMETHYL BENZOATE 2 (M)	6666.60	0.646	
BROMO-4-CYANOMETHYL BENZOATE 3 (M)	1338.88	0.584	
BROMOACETONE	0.54	0.145	598-31-2
BROMOBENZENE	270.00	0.524	108-86-1
BROMOBENZYL ALCOHOL -(m)	0.21	0.046	15852-73-
BROMOBENZYL ALCOHOL -(o)	0.21	0.046	18982-34-
BROMOBENZYL ALCOHOL -(p)	0.21	0.046	873-75-6
BROMOCHLOROBENZENE P	13278000.00	0.963	106-39-8
BROMOCHLOROBENZYL ALCOHOL	0.46	0.069	
BROMOCHLOROMETHANE	1438900.00	0.992	74-97-5
BROMODICHLOROMETHANE	11389.00	0.796	75-27-4
BROMOETHYL ACETATE	23.22	0.458	927-68-4
BROMOETHYLENE	744440.00	0.990	543-60-2
BROMOFORM	29.56	0.397	75-25-2
BROMOMETHANE	381.06	0.698	74-83-9
BROMOPHENYL PHENYL ETHER,4-	4.27	0.217	101-55-3
BROMOPROPIONITRILE 3 (M)	678.71	0.605	2417-90-5
BROMOTOLUENE 4	133.89	0.454	106-38-7
BROMOURACIL,5- (M)	588880.00	0.942	51-20-7
BUTADIENE-(1,3)	3961.07	0.745	106-99-0
BUTANE	16167.00	0.826	106-97-8
BUTANEDINITRILE	0.50	0.182	110-61-2
BUTANENITRILE (M)	1.53	0.266	109-74-0
BUTANOL ISO	0.12	0.065	78-83-1
BUTANOL(S)	0.71	0.253	78-92-2
BUTANOL-1	0.49	0.177	71-36-3
BUTENE	39682.00	0.884	
BUTYL ACETATE(-n)	9.11	0.368	123-86-4
BUTYL ACRYLATE	33.94	0.442	141-32-2

TABLE 4--Continued

Compound	Y/X	Fet	CAS
BUTYL BENZENE	4905.51	0.573	104-51-8
BUTYL BENZYL PHTHALATE	599.99	0.495	85-68-7
BUTYL CARBITOL	4505.51	0.687	112-34-5
BUTYL MERCAPTAN	12500.00	0.758	
BUTYL-3-METHOXY PYRAZINE,2-ISO(M)	10739.00	0.579	24683-00-
BUTYLAMINE	0.84	0.241	109-73-9
BUTYLBUTOXY PROPIONATE	4.20	0.224	
BUTYLENE GLYCOL-(1,3)	0.20	0.096	107-88-0
BUTYLISOBUTYRATE	399.44	0.597	
BUTYRALDEHYDE	14.33	0.490	123-72-8
BUTYRALDEHYDE ISO	8.17	0.438	78-84-2
c10 linear	396820.00	0.784	
c11 linear	1010100.00	0.799	
CACODYLIC ACID (M)	2.14	0.219	75-60-5
CAMPHENE (M)	75.56	0.483	79-92-5
CAPTAN	2.60	0.170	
CARBARYL sevin	1.80	0.180	63-25-2
CARBAZOLE (M)	2444400.00	0.973	86-74-8
CARBENDAZIM	0.14	0.029	
CARBON DIOXIDE (M)	1587.29	0.668	
CARBON DISULFIDE	1063.99	0.669	75-15-0
CARBON OXYFLUORIDE*	3527.74	0.993	353-50-4
CARBON TETRACHLORIDE	1677.80	0.634	56-23-5
CARBONYL FLUORIDE *	2.78	0.358	
CARBONYL SULFIDE	5.49	0.500	
CHLORAL	53.89	0.514	302-17-0
CHLORAMBEN	1.89	0.209	
CHLORAMBUCIL	0.31	0.039	305-03-3
CHLORDANE	2.04	0.130	57-74-9
CHLORENDIC ANHYDRIDE (M)	400.00	0.504	115-27-5
CHLORINATED TARS (M)	9.72	0.252	
CHLORNAPHAZINE	1.67	0.141	
CHLORO 2 BUTENE,1 trans	104.44	0.598	
CHLORO(-p)PHENYLHYDRAZINE(M)	15.78	0.367	
CHLORO-1,3-CYCLOPENTADIENE 5	2777.75	0.740	
CHLORO-2,2-DIBROMOETHANE 1	43.50	0.502	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
CHLORO-2,3-EPOXYPROPANE,1-(M)	1.79	0.321	106-89-8
CHLORO-2-METHOXYBENZOIC ACID 4 (M)	207.78	0.507	57479-70-
CHLORO-2-NITROBENZYL ALCOHOL 4 (M)	0.21	0.041	22996-18-
CHLORO-3-NITRO-5-PHENYLCYCLOHEXA(M)	0.23	0.044	
CHLORO-3-NITROANILINE 4 (M)	9.61	0.317	635-22-3
CHLORO-4AMINOCOUMARAN-6CARBOXYLI(M)	5407.73	0.643	
CHLORO-4-CYANOBENZYL ALCOHOL 2 (M)	0.34	0.071	
CHLORO-4-HYDROXYBIPHENYL 3 (M)	29944.00	0.751	92-04-6
CHLORO-4-METHOXY-6-AMINOBENZOIC(M)	22.22	0.353	
CHLORO-4-METHYL-N-METHYLBENZAMID(M)	0.51	0.085	
CHLORO-4-NITROANISOLE 2 (M)	4749200.00	0.965	
CHLORO-4-PHENYLPYRIDINE 2(M)	0.53	0.085	
CHLORO-5AMINO3PYRIDINE CARB.ACID(M)	20.33	0.357	
CHLORO-5-CYANOPHTHALIC ACID 4 (M)	11423.00	0.677	
CHLORO-5-CYANOTOLUENE 3 (M)	83.89	0.467	
CHLORO-5-FLUOROTOLUENE 3	16.06	0.339	443-83-4
CHLORO-5-PHENOXYDIMETHYL PHTHALA(M)	8888.80	0.645	
CHLOROACETALDEHYDE	1.44	0.324	107-20-0
CHLOROALLYL ALCOHOL 2	1.02	0.244	5976-47-6
CHLOROANILINE(2)	933.32	0.658	95-51-2
CHLOROANILINE(3)	933.32	0.653	108-42-9
CHLOROAZOBENZENE	599.99	0.444	
CHLOROBENZENE	209.00	0.446	108-90-7
CHLOROBENZENESULFONIC ACID (-p)(M)	0.49	0.085	100-03-8
CHLOROBENZILATE	0.21	0.026	510-15-6
CHLOROBENZOIC ACID,2	0.41	0.091	118-91-2
CHLOROBENZOIC ACID,3-	0.26	0.061	535-80-8

TABLE 4--Continued

Compound	Y/X	Fet	CAS
CHLOROBENZOIC ACID,4-	0.26	0.061	74-11-3
CHLOROBENZOTRICHLORIDE P	6388.83	0.523	5216-25-1
CHLOROBENZOTRIFLUORIDE, P	31415.00	0.544	
CHLOROBENZYL ALCOHOL -(m)	0.16	0.040	873-63-2
CHLOROBENZYL ALCOHOL -(o)	0.16	0.040	17849-38-
CHLOROBENZYL ALCOHOL -(p)	0.16	0.040	873-76-7
CHLOROBIPHENYL (-p)	522.22	0.452	2051-62-9
CHLOROBUTADIENE,1	561.11	0.629	
CHLOROCOUMARAN 2 (M)	501.66	0.562	2051-59-4
CHLOROCYANOBENZENE (1,4)(M)	955550.00	0.956	873-32-5
CHLOROCYCLOHEXANE	822210.00	0.973	542-18-7
CHLOROCYCLOHEXANOL 2	14.94	0.428	1561-86-0
CHLOROCYCLOHEXANOL 4	75.00	0.554	
CHLORODIACETYL (M)	588880.00	0.949	
CHLORODIMETHYL PHTHALATE 3 (M)	6388.83	0.646	
CHLORODIPHENYL THIOETHER P (M)	566.66	0.558	7005-72-3
CHLOROETHANE (ethyl chloride)	672.00	0.723	75-00-3
CHLOROETHANOL (ETHYLENE CHLOROHYDRI	0.59	0.221	107-07-3
CHLOROETHYL(2-) VINYL ETHER	1922.20	0.758	110-75-8
CHLOROETHYLENE	301.66	0.747	
CHLOROFLUOROBENZENE P	9055500.00	0.971	352-33-0
CHLOROFLUOROMETHANE *	94999.00	0.972	593-70-4
CHLOROFORM	221.33	0.612	67-66-3
CHLOROHYDROXYPHENYL4 METHYL BENZ(M)	6648.85	0.641	
CHLOROMETHYL ACETYLENE *	6917.51	0.789	
CHLOROMETHYL BENZOATE P (M)	4738.84	0.650	1126-46-1
CHLOROMETHYL ETHYL KETONE	147.78	0.679	
CHLOROMETHYL METHYL ETHER	4.79	0.458	107-30-2
CHLOROMETHYL PHENYL KETONE	0.17	0.042	532-27-4
CHLOROMETHYL PHENYLHYDRAZINE P (M)	17.44	0.363	
CHLOROMETHYLAMINOIMINE (M)	1988.32	0.670	
CHLORONAPHTHALENE,2-	1011.10	0.533	91-58-7
CHLORONITROALKOXYIMINE (M)	1.28	0.136	
CHLORONITROBENZENE(-o)	437.77	0.585	88-73-3

TABLE 4--Continued

Compound	Y/X	Fet	CAS
CHLORONITROBENZENE, p	5.08	0.289	
CHLORO-N-METHYLBENZAMIDE P (M)	0.47	0.085	
CHLOROPHENOL-2	0.46	0.106	95-97-8
CHLOROPHENOL-3	0.18	0.054	108-43-0
CHLOROPHENYL PHENYL ETHER,4-*	14.78	0.310	7005-72-3
CHLOROPHENYLETHANOL 1,1	435.00	0.617	
CHLOROPHTHALIC ANHYDRIDE 4 (M)	0.20	0.040	
CHLORO-p'-METHYLBIPHENYL P (M)	561.11	0.558	1667-11-4
CHLOROPRENE	51.63	0.597	126-99-8
CHLOROPROPANE-1	722.22	0.742	540-54-5
CHLOROPROPANE-2	944.44	0.745	75-29-6
CHLOROPROPENE 3	19944.00	0.913	557-98-2
CHLOROPROPIONITRILE,3-	0.28	0.111	542-76-7
CHLOROPROPYLENE-2	19944.00	0.839	557-98-2
CHLORO-p-XYLENE	78.33	0.421	104-82-5
CHLOROPYRIDINE 2 (M)	82.78	0.496	109-09-1
CHLOROSTYRENE (-4)	385.00	0.522	1331-28-8
CHLOROTETRAHYDROFURAN 3 (M)	16.83	0.387	
CHLOROTHIOPHENOL P *	4016.63	0.604	106-54-7
CHLOROTOLUENE-4	258.89	0.511	106-43-4
CHLOROURACIL,5- (M)	588880.00	0.943	1820-81-1
cis 1,2 DIMETHYLCYCLOHEXANE	19841.00	0.682	
CITRUS RED #2 (M)	611.11	0.509	6358-53-8
COPPER PHTHALOCYANINE (M)	320.00	0.353	147-14-8
COUMARAN (M)	5344.39	0.694	91-64-5
CROTONALDEHYDE	0.86	0.212	470-30-3
CROTONYLENE (2-BUTYNE)	375550.00	0.977	503-17-3
CUMENE (isopropylbenzene)	727.77	0.545	98-82-8
CUMENE HYDROPEROXIDE	1.73	0.204	
CYANOBENZYL ALCOHOL P *	0.13	0.040	
CYANOGEN	275.55	0.734	460-19-5
CYANOGEN BROMIDE *	11.33	0.462	506-68-3
CYANOGEN CHLORIDE(M)	149.78	0.704	506-77-4
CYANOGUANIDINE (M)	115.55	0.484	461-58-5
CYANOMETHYLPHTHALATE 4 (M)	2116400.00	0.882	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
CYANOPYRIDINE (-4) *	14444.00	0.800	100-48-1
CYANOPYRIDINE 3 *	14444.00	0.807	100-54-9
CYANOTOLUENE 4	816660.00	0.955	
CYANURIC ACID (M)	0.14	0.042	108-80-5
CYCASIN (M)	400.00	0.439	14901-08-
CYCLOHEXADIENE1,4DIONE2,6BIS11DIMET	0.14	0.028	
CYCLOHEXANE	761.10	0.626	110-82-7
CYCLOHEXANOL	0.61	0.159	
CYCLOHEXANOL	0.25	0.136	108-93-0
CYCLOHEXANONE	0.23	0.088	108-94-1
CYCLOHEXENE	572220.00	0.960	110-83-8
CYCLOHEXENE 1 ONE, 2	0.73	0.183	
CYCLOHEXYL ACETATE	3.95	0.273	622-45-7
CYCLOHEXYL-2,2-DIPHENYLETHYLAMIN(M)	14.28	0.279	
CYCLOHEXYL-4,6-DINITROPHENOL,2-(M)	245550000.00	0.943	131-89-5
CYCLOHEXYLAMINE	2.35	0.280	108-91-8
CYCLOHEXYLCYCLOHEXANONE 4	223.33	0.436	56025-96-
CYCLOPENTADIENE	1072200.00	0.980	
CYCLOPENTADIENE 1,3	183.89	0.615	
CYCLOPENTANE	8417.42	0.767	
CYCLOPENTENE	3472.19	0.731	
CYCLOPHOSPHAMIDE (M)	89.71	0.544	50-18-0
CYCLOPROPANE C3H6	5050.46	0.833	
CYLCOHEXYL o,o-DIMETHYL PHOS.DIT(M)	87719.00	0.778	
CYMENE,para	1016.66	0.519	
CYTOSINE (M)	198.29	0.831	71-30-7
DAUNOMYCIN(M)	611.11	0.466	20830-81-
DAZOMET	0.11	0.029	
DDD,p,p'-	15.33	0.258	72-54-8
DDE,p,p'-	97.78	0.328	72-55-9
DDT	6333.27	0.398	50-29-3
DECANAL	91.07	0.415	
DECENE, 8 METHYL 1-	4461.07	0.507	
DIACETYL (M)	4.78	0.318	431-03-8

TABLE 4--Continued

Compound	Y/X	Fet	CAS
DIAMINO-5-SULFONYL BENZYL 2,4 (M)	101.70	0.396	
DIAMINODIPHENYLMETHANE P,P' (M)	27246.00	0.606	101-77-9
DIAZOMETHANE	0.72	0.329	
DIBENZOFURANS	221.66	0.365	
DIBENZOPYRENE 1,2,7,8	202.22	0.318	
DIBROMO-3-CHLOROPROPANE,1,2	1.31	0.173	96-12-8
DIBROMOCHLOROMETHANE	43.50	0.643	124-48-1
DIBROMOETHANE-1,2	605.55	0.675	106-93-4
DIBROMOMETHANE	55.44	0.542	74-95-3
DIBUTYL ETHER	222.22	0.499	142-96-1
DIBUTYLAMINE	5.05	0.293	
DICHLORO 2-PROPANOL 1,3	25.56	0.570	96-23-1
DICHLORO PROPANOL 2,3	1.30	0.255	616-23-9
DICHLORO-1,3-CYCLOPENTADIENE 5,5(M)	3738.85	0.655	
DICHLORO-2-BUTENE 1,2	55.17	0.562	
DICHLORO-2-BUTENE(1,4)	14.39	0.453	764-41-0
DICHLORO-2-BUTENE, 1,4	91.67	0.594	
DICHLOROANILINE(2,3)	0.10	0.026	
DICHLOROBENZENE(1,2) (-o)	107.78	0.559	95-50-1
DICHLOROBENZENE(1,3) (-m)	200.55	0.510	541-73-1
DICHLOROBENZENE(1,4) (-p)	176.11	0.502	106-46-7
DICHLOROBENZIDINE,3,3'-	0.15	0.023	91-94-1
DICHLOROBENZOPHENONE P,P	0.26	0.038	90-98-2
DICHLOROBIPHENYL (PARA)	1999.98	0.425	213029-08
DICHLOROBUTANE (1,4)	176660.00	0.978	110-56-5
DICHLORODIPHENYLMETHANE (M)	661.11	0.554	2051-90-3
DICHLOROETHANE(1,1)	312.23	0.562	75-34-3
DICHLOROETHANE(1,2)	65.38	0.524	107-06-2
DICHLOROETHENE 1,2 trans	3582.00	0.775	156-60-5
DICHLOROETHENE(1,1)	1438.90	0.680	75-35-4
DICHLOROETHYL ETHER	1.14	0.197	
DICHLOROETHYLENE(1,2) cis	861.00	0.664	156-54-2
DICHLOROIODOMETHANE	11.89	0.350	
DICHLOROMONOFLUOROMETHANE	51166000.00	0.989	75-43-4
DICHLOROPHENOL	2.78	0.227	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
DICHLOROPHENOL(2,4)	0.27	0.055	120-83-2
DICHLOROPHENOL(2,6)	0.27	0.055	87-65-0
DICHLOROPHENOXYACETIC ACID(2,4)	3449.97	0.626	94-75-7
DICHLOROPROPANE 1,2	159.00	0.540	78-87-5
DICHLOROPROPENE(1,3)	197.22	0.594	542-75-6
DICHLOROPROPYLENE,1,2- (cis)	498.88	0.608	
DICHLOROPROPYLENE,1,2-(trans)	611.11	0.625	563-54-2
DICHLOROPROPYLENE-2,3	716.66	0.694	78-88-6
DICHLOROSTYRENE 2,6	477.77	0.467	
DICHLORO-TRANS-ETHYLENE(1,2)	4722.18	0.725	540-59-0
DIELDRIN	3.24	0.160	60-57-1
DIETHYL AMINE	1.42	0.286	109-89-7
DIETHYL ETHER	14.72	0.423	602-97-6
DIETHYL ETHER ACID CHLORIDE (M)	69148.00	0.836	
DIETHYL PHTHALATE	616.66	0.514	84-66-2
DIETHYL SULFATE	0.34	0.101	
DIETHYL THIOETHER(M)	25000.00	0.719	352-93-2
DIETHYLBENZENE P	372.77	0.481	105-05-5
DIETHYLDIPHENYL UREA SYM(M)	744.44	0.466	85-98-3
DIETHYLENE GLYCOL DIETHYL ETHER	0.12	0.031	
DIETHYLUREA 1,1 (M)	0.32	0.085	634-95-7
DIHYDRO-5-OXAZALONE (DIHYDROAZLA(M)	209.68	0.493	
DIISOBUTYLENE	6531.46	0.594	
DIISODECYL PHTHALATE	22.67	0.238	
DIISOPROPYL BENZENE (PARA)	5944.39	0.507	100-18-5
DIISOPROPYL KETONE	31.56	0.441	
DIISOPROPYLAMINE	17.06	0.403	
DIMETHOXY METHANE	6.72	0.442	109-87-5
DIMETHOXY-(3,3')-BENZIDINE	135.55	0.422	119-90-4
DIMETHYL AMINE	0.29	0.198	124-40-3
DIMETHYL BENZ(A)ANT 7,12	705.55	0.373	
DIMETHYL BENZOIC ACID, 2,4	0.59	0.115	
DIMETHYL BENZOIC ACID, 3,5	0.59	0.115	
DIMETHYL BENZYLAMINE N,N	75.00	0.481	103-83-3
DIMETHYL METHYLTHIOCARBAMATE N,N(M)	835.09	0.585	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
DIMETHYL NITROISOPROPYLAMINE N,N(M)	14.78	0.340	
DIMETHYL NITROSAMINE (M)	10739.00	0.952	
DIMETHYL SULFATE	0.22	0.074	77-78-1
DIMETHYL SULFIDE	302.78	0.679	75-18-3
DIMETHYL TRISULFIDE	168470.00	0.568	
DIMETHYL-1-NITROBENZENE 2,4	420.00	0.550	25168-04-
DIMETHYLACETAMIDE	0.57	0.284	
dimethylaniline N,N	0.77	0.316	57-14-7
DIMETHYLBENZYL HYDROPEROXIDE (M)	26.72	0.391	80-15-9
DIMETHYLETHYLAMINE	21.39	0.523	75-64-9
DIMETHYLGLYCOL	5.05	0.483	
DIMETHYLHYDANTOIN,5,5- (M)	10739.00	0.596	77-71-4
DIMETHYLPHENOL(2,4)	51.17	0.400	105-67-9
DIMETHYLPHENYLCARBINOL (M)	400.00	0.497	617-94-7
DIMETHYLSULFOXIDE	2.59	0.419	
DINITROBENZENE M	1.22	0.285	99-65-0
DINITROPHENOL 2,4	0.28	0.055	51-28-5
DINITROTOLUENE 2,6	0.51	0.091	606-20-2
DINITROTOLUENE(2,4)	0.40	0.165	121-14-2
DINOCAP (M)	>10000	0.935	39300-45-
DI-n-OCTYL PHTHALATE	7611.04	0.318	117-84-0
DINOSEB (M)	66.67	0.375	88-85-7
DIOXANE(1,4)	0.31	0.168	123-91-1
DIOXIN (M)	4.51	0.279	828-00-2
DIPHENYL ETHER (M)	124.44	0.509	101-84-8
DIPHENYL THIOETHER(M)	517.22	0.593	139-66-2
DIPHENYLAMINE (M)	0.15	0.046	122-39-4
DIPHENYLBUTADIENE 1,3 (M)	114.44	0.488	886-65-7
DIPHENYLCHLOROMETHANE (M)	561.11	0.591	90-99-3
DIPHENYLDIKETONE (M)	583.33	0.590	134-81-6
DIPHENYLETHANE 1,1(M)	50.56	0.439	
DIPHENYLETHANOL 1,1 (M)	0.11	0.023	599-67-7
DIPHENYLHYDRAZINE,1,1- (M)	405.55	0.580	530-50-7
DIPHENYLMETHANE	2.02	0.195	101-81-5
DIPROPYLAMINE	14.06	0.411	142-84-7
DIPROPYLBUTRAL	4.82	0.264	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
DIPROPYLFORMAMIDE(M)	10739.00	0.595	6282-00-4
DI-tert-BUTYL-p-CRESOL	0.14	0.027	128-37-0
DIVINYL KETONE (M)	24.33	0.419	
dodecane	396820.00	0.663	
EDTA(M)	16.67	0.412	60-00-4
ENDOSULFAN	0.35	0.036	115-29-7
ENDOSULFAN SULFATE(M)	2642200.00	0.906	1031-07-8
ENDRIN ALDEHYDE (M)	16.67	0.412	
EPICHLOROHYDRIN	1.86	0.325	106-89-8
EPOXYBUTANE 1,2	25.61	0.513	
ETHANE	2738.86	0.833	
ETHANOL	0.31	0.126	64-17-5
ETHENE	11820.00	0.905	
ETHENYL 2 METHYL BENZENE, 1-	176.67	0.494	
ETHOXYETHANOL-2	0.35	0.134	110-80-5
ETHYL 2 METHYL BENZENE, 1-	231.48	0.488	
ETHYL ACETATE PEROXIDE (M)	166.67	0.463	
ETHYL ACRYLATE	14.11	0.425	140-88-5
ETHYL BUTANOATE	19.84	0.457	
ETHYL CYANIDE (PROPIONITRILE) (M)	15.28	0.580	107-12-0
ETHYL ETHER	37.78	0.500	60-29-7
ETHYL HEPTANOATE	27.78	0.385	
ETHYL ISOPROPYL PEROXIDE(M)	14.44	0.356	
ETHYL METHANOATE	15.43	0.566	
ETHYL PENTANOATE	19.16	0.419	
ETHYL PEROXIDE	0.16	0.112	
ETHYL PROPYL ETHER	63.86	0.532	
ETHYL S,S-DIPHENYL PHOSPHORODITH(M)	8.61	0.246	1709-49-8
ETHYL TOLUENE, 4	711.10	0.538	
ETHYL VINYL ETHER	118.33	0.603	
ETHYL(2) HEXANOL	3.43	0.266	104-76-7
ETHYL-(2)-PROPYL-(3) ACROLEIN (M)	1.79	0.257	645-62-5
ETHYLACETATE	7.11	0.404	141-78-6
ETHYLAMINE	0.57	0.280	75-04-7
ETHYLBENZENE	437.81	0.557	100-41-4

TABLE 4--Continued

Compound	Y/X	Fet	CAS
ETHYLENE	24555.00	0.931	74-85-1
ETHYLENE DIAMINE	0.47	0.241	107-15-3
ETHYLENE DIBROMIDE	36.11	0.471	106-93-4
ETHYLENE GLYCOL DIMETHYL ETHER	1.95	0.292	110-71-4
ETHYLENE GLYCOL MONOBUTYL ETHER ACET.	0.27	0.062	
ETHYLENE GLYCOL MONOMETHYL ETHER ACET.0.12	0.046	110-49-6	
ETHYLENE OXIDE	13.23	0.450	75-21-8
ETHYLETHOXY PROPIONATE	1.50	0.213	
ETHYLHEXYL HEXANOL 2	0.88	0.113	
ETHYLHEXYLACRYLATE,2-	163.33	0.425	103-11-7
FENCHONE,d-(M)	16.67	0.368	4695-62-9
FLUORANTHENE	120.77	0.457	206-44-0
FLUORENE	6.50	0.282	86-73-7
FLUOROMETHANE	1068.37	0.824	
FLUOROURACIL,5- (M)	16.67	0.412	51-21-8
FORMYL FLUORIDE	18.52	0.577	
FREON 11, fluorotrichloromethane	2911.08	0.669	
FREON 12 DICHLORODIFLUOROMETHANE	22278.00	0.818	75-71-8
FREON 12, dichlorodifluoromethane	43386.00	0.839	
FREONS (M)	22278.00	0.746	
FURAN	296.66	0.650	110-00-9
FURFURAL	4.51	0.354	98-01-1
FUROIC ACID(M)	30.62	0.382	88-14-2
GEOSMIN (M)	16.67	0.350	19700-21-
GLYOXAL	0.61	0.297	
GUANINE (M)	10739.00	0.962	73-40-5
HEPTACHLOR	127.78	0.337	76-44-8
HEPTACHLOR EPOXIDE(M)	1.76	0.118	1024-57-3
HEPTANAL	16.84	0.394	
HEPTANE ISO	241660.00	0.887	31394-54-
HEPTANE(-n)	112220.00	0.836	142-82-5
HEXACHLOROBENZENE	94.45	0.351	118-74-1
HEXACHLOROBUTADIENE	572.23	0.505	87-68-3

TABLE 4--Continued

Compound	Y/X	Fet	CAS
HEXACHLOROCYCLOHEXANE (GAMMA ISOMER	0.43	0.058	58-89-9
HEXACHLOROCYCLOPENTADIENE	369.44	0.456	77-47-4
HEXACHLOROETHANE	463.89	0.440	67-72-1
HEXACHLOROPENTADIENE (M)	766.66	0.550	
HEXADECANE N (M)	1400000.00	0.963	544-76-3
HEXAFLUOROACETONE	9017200.00	0.912	
HEXAFLUOROPROPENE	191570.00	0.710	116-15-4
HEXAMETHYLENEDIAMINE (M)	1.60	0.213	124-09-4
HEXAMETHYLENIMINE	0.35	0.109	
HEXANAL	11.82	0.400	
HEXANE(-n)	42667.00	0.801	110-54-3
HEXANOL 2 ETHYL	0.64	0.134	104-76-7
HEXANOL-1	1.01	0.180	111-27-3
HEXEN-2-ONE 5	4.44	0.347	
HEXENE	23148.00	0.769	
HEXYL ETHANOATE	29.24	0.396	
HEXYLAMINE	1.50	0.239	
HYDROFLUORIC ACID(M)	13.17	0.537	7664-39-3
HYDROGEN SULFIDE	1277.77	0.785	
HYDROXY DIMETHYL ETHER (M)	1083.32	0.580	
HYDROXY-1,3-CYCLOPENTADIENE 5 (M)	225.00	0.519	
HYDROXY-4-METHYLTETRAHYDROFURAN(M)	14.33	0.356	
HYDROXY-5-METHYLDIMETHYL PHTHALA(M)	6277.72	0.543	
HYDROXY6METHYLPYRIDINE3CARBOXYLI(M)	17.00	0.326	38116-61-
HYDROXYACETIC ACID	10.56	0.570	79-14-1
HYDROXYCYCLOHEXANONE 4 (M)	0.23	0.069	
HYDROXYDIMETHYL PHTHALATE 4 (M)	5833.28	0.545	
HYDROXYMETHYL ACETYLENE (M)	58129.00	0.730	
HYDROXYMETHYL ISOPROPYL KETONE (M)	125.00	0.477	
HYDROXYMETHYL, N-METHYLETHYL AMI(M)	24722.00	0.650	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
HYDROXYMETHYL-N-CHLOROMETHYLETHY(M)	22732.00	0.634	
HYDROXYMETHYLPHENYL CARBAMATE N(M)	0.87	0.137	
HYDROXYMETHYLTHIOBENZENE(M)	388.89	0.493	
HYDROXYMETHYLVINYL ETHER(M)	1805.54	0.553	
HYDROXYPENTANE 3 (M)	22.39	0.391	
INDANOL,5-(M)	10739.00	0.568	1470-94-6
INDOLE (M)	10739.00	0.763	120-72-9
IODOCOUMARAN 2 (M)	107890.00	0.898	
ISOBUTANE	3105.53	0.728	
ISOBUTYL ETHANOATE	25.25	0.486	
ISOBUTYLBENZENE	1792.10	0.550	
ISOBUTYLENE	2038.87	0.722	
ISOCYANO 4 METHYL BENZENE *	1.49	0.198	
ISODECANOL	0.30	0.069	
ISODECYL OCTYL ESTER	1827.76	0.364	
ISOPENTANE	2905.53	0.684	
ISOPENTYL ETHANOATE	32.68	0.435	
ISOPENTYL METHANOATE	37.04	0.484	
ISOPHORONE	0.37	0.100	78-59-1
ISOPROPYL AMINE	19.89	0.538	75-31-0
ISOPROPYL ETHER	231.00	0.487	108-20-3
ISOPROPYL METHANOATE	46.30	0.578	
ISOPROPYL METHANOATE	32.68	0.547	
ISOPROPYL PROPANOATE	32.68	0.459	
ISOXAZOLOL,5-(AMINOMETHYL)-3-(M)	10739.00	0.603	2763-96-4
LINDANE hexachlorocyclohexane	116.67	0.541	
MELAMINE (M)	4611.07	0.577	108-78-1
MERCAPTOBENZOTHIAZOLE, 2	110.55	0.450	
MERCURY (M)	633.33	0.587	7439-97-6
METHACRYLIC ACID	0.63	0.194	79-41-4
METHANE	74444.00	0.980	74-82-8
METHANETHIOL (M)	232.22	0.611	74-93-1
METHANOL	0.29	0.155	67-56-1
METHAPYRILENE (M)	10739.00	0.549	91-80-5
METHOXYACETIC ACID	0.10	0.053	625-45-6

TABLE 4--Continued

Compound	Y/X	Fet	CAS
METHOXYACETONITRILE (M)	9.89	0.382	1738-36-9
METHOXYCHLOR	14.39	0.241	72-43-5
METHYL 1-PENTENE 2	583330.00	0.954	763-29-1
METHYL 2-PROPYL ETHER	46.30	0.400	
METHYL ACETATE	5.67	0.454	79-20-9
METHYL ACRYLATE	30.17	0.408	96-33-3
METHYL ACRYLONITRILE (M)	21778.00	0.661	126-98-7
METHYL AMINE	298.89	0.877	74-89-5
METHYL AMINOACETYLENE (M)	7499.93	0.644	
METHYL AZIRIDINE 2	1.76	0.360	
METHYL BENZOATE	0.99	0.168	
METHYL BENZYL ALCOHOL 4	0.77	0.154	
METHYL BIPHENYL (-p) (M)	467.77	0.595	644-08-6
METHYL BUTANOATE	11.34	0.413	
METHYL CHLORIDE	490.00	0.626	74-87-3
METHYL CHLOROACETAMIDE N(M)	0.60	0.137	
METHYL CHLOROCARBONATE (M)	13111.00	0.726	79-22-1
METHYL CHOLANTHRENE 3	7.44	0.234	56-49-5
METHYL COUMARAN 2(M)	445.00	0.587	607-71-6
METHYL CYCLOHEXANE	54388.00	0.802	108-87-2
METHYL ETHER dimethyl ether	176.67	0.730	115-10-6
METHYL ETHYL ETHER	61.73	0.617	
METHYL ETHYL KETONE, 2 butanone	7.22	0.435	78-93-3
METHYL FORMATE	12.35	0.548	107-31-3
METHYL HEXANOATE	20.58	0.393	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
METHYL IODIDE	140.55	0.563	74-88-4
METHYL ISOAMYL KETONE (M)	7.00	0.304	110-12-3
METHYL ISOBUTYL KETONE	21.67	0.457	108-10-1
METHYL ISOCYANATE	583.33	0.650	624-83-9
METHYL ISOPROPYL KETONE	25.44	0.523	563-80-4
METHYL MERCAPTAN	200.00	0.700	
METHYL METHACRYLATE	7.83	0.322	80-62-6
METHYL MORPHOLINE	0.18	0.069	
METHYL NAPTHALENE(1-)	39.44	0.370	90-12-0
METHYL NAPTHALENE(2-)	3.22	0.246	91-57-6
METHYL OCTANOATE	42.74	0.387	
METHYL PENTANOATE	17.92	0.414	
METHYL PEROXIDE	0.18	0.159	
METHYL PROPANOATE	8.96	0.431	
METHYL PROPENE 2 (M)	388890.00	0.963	115-11-7
METHYL PROPYL ETHER	81.70	0.594	
METHYL TERTIARY-BUTYL ETHER	30.84	0.494	1634-04-4
METHYL TETRAHYDROFURAN 2	5.05	0.357	
METHYL THIOURACIL(M)	291.63	0.479	56-04-2
METHYL-1,3-CYCLOPENTADIENE 5 (M)	2227.76	0.679	26519-91-
METHYL-2,3,4-TRIHYDROQUINOLINE N(M)	0.81	0.137	
METHYL-2-AMINOETHYLAMINE(M)	1027.77	0.635	109-81-9
METHYL-2-HYDROXYETHYLAMINE (M)	0.19	0.080	109-83-1
METHYL-3-ACETYLCYCLOPENTADIENE 1(M)	294.44	0.588	
METHYL-3-NITROBENZYL ALCOHOL 4 (M)	0.37	0.073	40870-59-
METHYL-4-NITROBENZYL ALCOHOL 2 (M)	0.19	0.041	23876-13-
METHYL-5-THIOACETYLDIHYDRO1,3THI(M)	43427.00	0.648	
METHYLACETONITRILE (M)	19944.00	0.643	75-86-5
METHYLBUTADIENE (isoprene)	4273.46	0.726	
METHYLBUTYLAMINE	0.62	0.178	
METHYLCYCLOPENTANE	19841.00	0.776	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
METHYLENE CHLORIDE, dichloromethane	164.45	0.647	75-09-2
METHYLFURAN 2 (M)	0.15	0.064	534-22-5
METHYLISOBORNEOL,2- (M)	400.00	0.477	NA
METHYLPHENYL CARBAMATE N(M)	0.78	0.137	
METHYL-PHENYLETHYLAMINE N(M)	75.00	0.412	589-08-2
METHYL-p'-METHYLTRIPHENYL PHOSPH(M)	811.10	0.584	
METHYLSTYRENE (-4)	328.33	0.532	98-93-9
METHYLTIN TRICHLORIDE (M)	0.13	0.022	993-16-8
METHYL-TRIHYDRO-1,3-THIAZOLE 4 (M)	5.83	0.316	
MITOMYCIN C(M)	10739.00	0.532	50-07-7
MNNG(M)	10739.00	0.587	70-25-7
MONOCHLORODIFLUOROMETHANE	23666000.00	0.990	75-45-6
MORPHOLINE	3.18	0.437	110-91-8
MUSTARD GAS(M)	16.67	0.364	505-60-2
NAPHTHALENE	26.84	0.413	
NAPHTHALENE ACETIC ACID 2 METHYL, 1	61.11	0.357	
NAPHTHOQUINONE-1,4(M)	1.28	0.164	130-15-4
NICKEL CYANIDE (M)	3.08	0.284	557-19-7
NITRO m XYLENE, 2	23.72	0.370	
NITRO-4-METHYLBENZOATE 3(M)	133990.00	0.733	
NITROANILINE P	12.61	0.411	100-01-6
NITROBENZENE	1.33	0.210	98-95-3
NITROBENZENESULFONYL CHLORIDE P(M)	24.61	0.316	98-74-8
NITROBENZYL ALCOHOL P (M)	11.17	0.314	619-73-8
NITROBIPHENYL,4-	0.40	0.068	92-93-3
NITROCELLULOSE (M)	55.56	0.109	9004-70-0
NITROETHANE	0.40	0.161	
NITROGEN MUSTARD N-OXIDE(M)	400.00	0.475	126-85-2
NITROMETHANE	1305.54	0.859	75-52-5
NITROMETHYLBENZENE	3.59	0.270	
NITROPROPANE 2	6.61	0.396	79-46-9
NITROSOBENZYL ALCOHOL 4 (M)	0.75	0.136	
NITROSOPYRROLIDINE N (M)	694440.00	0.884	930-55-2
NITROTOLUENE (-p)	22.67	0.399	99-99-0

TABLE 4--Continued

Compound	Y/X	Fet	CAS
NITROTOLUENE, m	3.97	0.279	
NITROTOLUENE, o	4.88	0.296	
NITROTOLUENE, o	3.27	0.266	
NONANAL	55.56	0.413	
NONANOL, n	0.25	0.065	
NONYLPHENOL(M)	400.00	0.452	25154-52-
OCTAMETHYLPYROPHOSPHORAMIDE (M)	>10000	0.941	152-16-9
OCTANAL	26.46	0.394	
OCTANE	215000.00	0.839	111-65-9
OCTANOL 1	2.41	0.240	111-87-5
OCTANOL 2	0.66	0.136	
OCTANOL 3	0.39	0.098	
OCTANOL 4	0.52	0.118	
OIL (decane)	2844.42	0.513	
OXAMIC ACID(M)	4.94	0.317	471-47-6
PARABROMOPHENOL (M)	0.90	0.135	106-41-2
PARAFORMALDEHYDE (M)	55.56	0.225	30525-89-
PARALDEHYDE	2.04	0.232	123-63-7
PCB 1016 (monochlorobiphenyl)	10.00	0.289	12674-11-
PCB 1221 (monochlorobiphenyl)	18.00	0.342	11104-28-
PCB 1232 (dichlorobiphenyl)	48.00	0.370	11141-16-
PCB 1242 (trichlorobiphenyl)	33.00	0.317	53469-21-
PCB 1248 (quatrochlorobiphenyl)	110.00	0.326	12672-29-
PCB 1254(pentachlorobiphenyl	450.00	0.539	11097-69-
PCB 1260 (hexachlorobiphenyl)	394.00	0.333	11096-82-
PCB'S (Aroclors)	48.00	0.338	
PENTACHLOROBENZENE	405.55	0.396	608-93-5
PENTACHLOROETHANE	1166.66	0.608	76-01-7
PENTACHLORONITROBENZENE	21.39	0.286	
PENTACHLOROPHENOL	4.90	0.261	87-86-5
PENTADIENE 1,2	661.11	0.666	
PENTAERYTHRITOL TETRANITRATE (M)	1.76	0.133	78-11-5
PENTANAL	8.17	0.406	
PENTANE	2244.42	0.676	
PENTYL PROPANOATE	46.30	0.418	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
PENTYLAMINE	1.36	0.254	
PENTYLBENZENE	326.79	0.458	
PENTYLCYCLOPENTANE	101010.00	0.700	
PERCHLOROMETHYL MERCAPTAN(M)	588880.00	0.942	594-42-3
PERYLENE (M)	611.11	0.525	198-55-0
PHENANTHRENE	1.98	0.193	85-01-8
PHENOL,3-(1,1-DIMETHYLETHYL)-(M)	400.00	0.504	585-34-2
PHENOTHIAZINE (M)	1105.54	0.613	92-84-2
PHENYL ISOCYANATE(M)	661.11	0.533	103-71-9
PHENYLACETIC PEROXIDE (M)	0.84	0.137	
PHENYLCYCLOHEXANONE 4	486.11	0.501	4894-75-1
PHENYLHYDRAZINE (M)	6.00	0.314	100-63-0
PHENYLPHENOL P	177.78	0.440	92-69-3
PHENYLTHIOUREA (M)	854.57	0.738	103-85-5
PHOSGENE (decomposes)	780.00	0.584	75-44-5
PHOSPHINE	12611.00	0.799	7803-51-2
PHTHALATE, DI N BUTYL-	0.27	0.039	
PHTHALATE, DI N OCTYL	66.11	0.273	
PHTHALIC ACID	733.33	0.716	88-99-3
PHTHALIMIDE	633.33	0.710	85-41-6
PICOLINE(2-) (M)	7.06	0.398	109-06-8
PINENE(alpha-)	1455.54	0.540	80-56-8
PIPERAZINE	2.34	0.339	110-85-0
POLYCYCLIC KETONE O (M)	2777.75	0.415	
PROPANAL	4.27	0.436	
PROPANE	1222.21	0.755	74-98-6
PROPANE),2,2'-OXYBIS(2-CHLORO-(M)	588880.00	0.943	39638-32-
PROPANOIC ACID	0.10	0.062	79-09-4
PROPANOL	0.37	0.185	
PROPANOL ISO	0.43	0.190	67-63-0
PROPENAL	7.51	0.487	
PROPENE	11574.00	0.843	
PROPENYL BENZENE	767.99	0.567	
PROPIONALDEHYDE	3.32	0.375	123-38-6
PROPIONIC ACID	2.71	0.381	79-09-4
PROPIONITRILE (M)	15.28	0.580	107-12-0

TABLE 4--Continued

Compound	Y/X	Fet	CAS
PROPYL ACETATE ISO	17.61	0.453	108-21-4
PROPYL BUTANOATE	29.24	0.417	
PROPYL ETHER	191.57	0.565	111-43-3
PROPYL METHANOATE	20.58	0.506	
PROPYL PROPANOATE	21.37	0.427	
PROPYL THIOURACIL(M)	2171.99	0.588	51-52-5
PROPYL(-n) ACETATE	16.33	0.448	109-60-4
PROPYL(-n) BENZENE	366.11	0.520	103-65-1
PROPYL-3-METHOXY PYRAZINE,2-ISO(M)	10739.00	0.584	25773-40-
PROPYLAMINE	0.68	0.249	107-10-8
PROPYLCYCLOPENTANE	50505.00	0.752	
PROPYLENE	117220.00	0.962	115-07-1
PROPYLENE CHLOROHYDRIN	0.13	0.064	
PROPYLENE OXIDE	19.77	0.544	75-56-9
PROPYLENIMINE 1,2 2 methyl aziri	0.52	0.222	75-55-8
PROPYN-1-OL 2(PROPARLGYL)	0.48	0.225	107-19-7
PROPYNE	610.50	0.763	
PYRENE	0.60	0.089	129-00-0
PYRIDINE	1.31	0.255	110-86-1
PYRROLIDINE	0.13	0.072	
QUINALDINE(M)	611.11	0.597	91-63-4
RESERPINE (M)	115.55	0.384	50-55-5
s ACETYLMERCAPTOSUCCINIC ACID	0.13	0.035	
S4CHL.CYCLOHEX.00DIMETH.PHOS.DIT(M)	9.61	0.243	
SACCHARIN (M)	559.24	0.679	81-07-2
SAFROLE (M)	16.67	0.362	94-59-7
sec BUTYLBENZENE	771.60	0.528	
SILVEX	346.11	0.431	93-72-1
SODIUM DODECYL SULFATE (M)	2.53	0.187	151-21-3
SODIUM DODECYLBENZENE SULFONATE(M)	0.79	0.094	25155-30-
STREPTOZOTOCIN (M)	10739.00	0.969	18883-66-
STYRENE	144.71	0.702	100-42-5
STYRENE OXIDE	4.96	0.305	
SULFIDE (M)	115.75	0.613	
TAMARON (METHAMIDIPHOS)	0.25	0.075	

TABLE 4--Continued

Compound	Y/X	Fet	CAS
TARS(M)	111.11	0.370	
t-BUTYL HYDROPEROXIDE	0.72	0.199	75-91-2
TERPINEOL, ALPHA	28.67	0.370	
tert BUTANOL	0.79	0.231	
tert-AMYLBENZENE	1010.09	0.503	
tert-BUTYLBENZENE	661.37	0.527	
TETRACHLOROAQUINONE (M)	6230900.00	0.961	
TETRACHLOROBENZENE(1,2,3,4)	150.00	0.383	634-66-2
TETRACHLOROBENZENE(1,2,3,5)	236.66	0.401	634-90-2
TETRACHLOROBENZENE(1,2,4,5)	236.66	0.438	95-94-3
TETRACHLORODIBENZOFURAN(2,3,7,8)(M)	8.50	0.255	51207-31-
TETRACHLORODIBENZO-p-DIOXIN(2,3,7,8	2.21	0.145	1746-01-6
TETRACHLOROETHANE(1,1,1,2) (M)	111.11	0.493	630-20-6
TETRACHLOROETHANE(1,1,2,2)	13.86	0.397	79-34-5
TETRACHLOROETHENE	983.34	0.667	127-18-4
TETRACHLOROPHENOL(2,3,4,6)	0.25	0.039	58-90-2
TETRACHLOROPHENOL(2,3,5,6)	6166600.00	0.879	935-95-5
TETRACHLOROPROPENE(1,1,2,3) (M)	499.44	0.562	10436-39-
TETRADECANE	1594.43	0.395	629-59-4
TETRAETHYL LEAD	4494.40	0.659	78-00-2
TETRAETHYLENE GLYCOL (M)	0.71	0.107	112-60-7
TETRAETHYLENE PENTANE	1249.99	0.707	
TETRAETHYLPYROPHOSPHATE (M)	>100000	0.940	107-49-3
TETRAFLUOROETHENE	34722.00	0.761	
TETRAFLUOROMETHANE	264550.00	0.920	
TETRAHYDROBENZALDEHYDE	1.29	0.213	
TETRAHYDROFURAN	2.72	0.322	109-99-9
TETRAHYDRONAPHTHALENE,1,2,3,4-(M)	400.00	0.500	119-64-2
TETRAHYDROPYRAN	6.94	0.381	142-68-7
TETRAHYDROTHIOPHENE	60.56	0.514	
TETRALIN	104.44	0.439	
TETRANITROMETHANE	605.55	0.718	509-14-8
THIOACETAMIDE (M)	7.53	0.375	62-55-5
THIOBENZYL ALCOHOL P (M)	0.69	0.136	100-53-8

TABLE 4--Continued

Compound	Y/X	Fet	CAS
THIOBISETHANE, 1,1'	317.78	0.593	
THIOCYANATE (TOTAL AS SCN-) (M)	1555.54	0.602	NA
THIOMETHANOL (M)	28.98	0.499	74-93-1
THIOPHENOL(M)	2433.14	0.660	108-98-5
THIOPROPIONAMIDE 2(M)	0.29	0.085	
THIOUREA	8.89	0.472	62-56-6
THIRAM (M)	11716.00	0.621	137-26-8
THYMINE (M)	433.31	0.802	65-71-4
TOLUENE	356.67	0.551	108-88-3
TOLUENE24DIAZOBIS-METATOLUENEDIA(M)	2.38	0.133	
TOLUENESULFONYL CHLORIDE	0.12	0.028	
TOLUIC ALDEHYDE	14.06	0.382	122-78-1
TOLUIDINE (-0)	0.13	0.049	95-53-4
TOLUIDINE HYDROCHLORIDE,o- (M)	588880.00	0.947	636-21-5
TOLUIDINE P	1.06	0.208	106-49-0
TOXAPHENE	271.66	0.416	8001-35-2
trans 1,4 DIMETHYLCYCLOHEXANE	50505.00	0.752	
trans 2 BUTENAL	1.09	0.267	
trans 2 HEPTENE	23148.00	0.724	
trans 2 HEXENAL	2.78	0.295	
trans 2 OCTENAL	13.89	0.358	
trans, trans 2,4 HEXADIENAL	0.56	0.151	
TRIBROMOMETHYLPHOSPHATE (M)	1.93	0.136	
TRIBUTYL PHOSPHOROTRITHIOATE SSS	8.72	0.230	78-48-8
TRIBUTYL TIN ACETATE	386.66	0.386	
TRIBUTYLPHOSPHATE	2193900.00	0.778	126-73-8
TRICHLORO(1,1,2)TRIFLUOROETHANE ((M)	24166.00	0.739	76-13-1
TRICHLORO-1,2,2-TRIFLUOROETHANE,1,1	28996.00	0.693	76-13-1
TRICHLORO-1,3,5-TRIAZINE 2,4,6 (M)	51.22	0.413	108-77-0
TRICHLOROANISOLE 2,3,6 (M)	588880.00	0.940	50375-10-
TRICHLOROBENZENE 1,2,3	437.22	0.472	87-61-6
TRICHLOROBENZENE 1,2,4	106.67	0.417	120-82-1

TABLE 4--Continued

Compound	Y/X	Fet	CAS
TRICHLOROBENZENE 1,3,5	1161.10	0.512	108-70-3
TRICHLOROBUTANE 1,2,3 (M)	258890.00	0.910	18338-40-
TRICHLOROETHANE 1,1,1	966.67	0.666	71-55-6
TRICHLOROETHANE 1,1,2	45.77	0.495	79-00-5
TRICHLOROETHYLENE	566.67	0.636	79-01-6
TRICHLOROFLUOROMETHANE	3238.86	0.677	75-69-4
TRICHLOROPHENOL 2,4,5	0.48	0.079	95-95-4
TRICHLOROPHENOL 2,4,6	0.98	0.154	88-06-2
TRICHLOROPROPANE 1,1,1	1611.10	0.819	7789-89-1
TRICHLOROPROPANE(1,1,2)	1611.10	0.703	598-77-6
TRICHLOROPROPANE(1,2,2)	1611.10	0.721	3175-23-3
TRICHLOROPROPANE(1,2,3)	1555.54	0.817	96-18-4
TRICHLOROPROPENE (1,1,2)(M)	403.89	0.569	
TRICOSANE N(M)	5.12	0.270	629-50-5
TRIETHYLAMINE	6.94	0.339	121-44-8
TRIETHYLENE GLYCOL(M)	0.55	0.106	112-27-6
TRIETHYLPHOSPHOROTHIOATE,o,o,o-(M)	400.00	0.462	126-68-1
TRIFLUOROETHANE(1,1,1)	4666600.00	0.979	
TRIFLUOROMETHANE	4273.46	0.730	
TRIFLURALIN	8.89	0.230	
TRIISOBUTYLENE	5094.39	0.479	
TRIISOPROPYLAMINE	190.55	0.392	
TRIMELLITIC ANHYDRIDE (M)	0.23	0.046	552-30-7
TRIMETHYL BENZENE, 123	184.57	0.465	
TRIMETHYL-4-NITROANILINE 2,3,5 (M)	500.00	0.484	
TRIMETHYLAMINE	5.79	0.464	75-50-3
TRIMETHYLBENZENE (1,3,5)	326.79	0.502	108-67-3
TRIMETHYLPENTANE 2,2,4	185450.00	0.834	540-84-1
TRIMETHYLSILANOL	8716.44	0.752	
TRINITROBENZENE,sym- (M)	182.49	0.466	99-35-4
TRINITROTOLUENE(2,4,6)	0.76	0.105	118-96-7
TRIPHENYL PHOSPHINE (M)	7.28	0.249	603-35-0
TRIPHENYLMETHANE (M)	194440.00	0.922	516-73-3
TRIPHENYLPHOSPHINE NICKEL CARBON(M)	209.44	0.365	
TRIS (1-AZIRIDINYL) PHOSPHINE SU(M)	13.69	0.304	52-24-4

TABLE 4--Concluded

Compound	Y/X	Fet	CAS
TRIS (2,3-DIBROMOPROPYL) PHOSPHA(M)	4417800.00	0.939	126-72-7
TRISODIUM NITRILOTRIACETATE (M)	10739.00	0.568	5064-31-3
TRYPAN BLUE(M)	611.11	0.417	72-57-1
URACIL (M)	427.89	0.857	66-22-8
URACIL MUSTARD (M)	611.11	0.525	66-75-1
UREA	14.67	0.582	57-13-6
URETHANE	3.26	0.370	51-79-6
VALERIC ACID (M)	3.73	0.287	109-52-4
VINYL ACETATE	28.21	0.521	108-05-4
VINYL ACETYLENE	1461.97	0.746	
VINYL BROMIDE	375.55	0.693	
VINYL CHLORIDE	1472.00	0.854	75-01-4
VINYL DIHYDROPYRAN	52.89	0.536	
VINYL METHYL ETHER	39.61	0.590	
VINYLCYCLOHEXENE 4(M)	102220.00	0.905	100-40-3
VINYLIDENE CHLORIDE	1438.90	0.680	75-35-4
XYLENE	291.66	0.562	1330-20-7
XYLENE(-m)	413.00	0.549	108-38-3
XYLENE(-o)	271.00	0.569	95-47-6
XYLENE(-p)	413.34	0.561	106-67-9
XYLIDINE dimethylaniline	0.15	0.048	
XYLYL CHLORIDE M (M)	78.33	0.470	620-19-9
XYLYL CHLORIDE O (M)	78.33	0.470	552-45-4

* Molecular structure only approximate.
(M) fraction measured (fm) estimated from Mwt correlation.

TABLE 5 OF APPENDIX J--FE VALUES FOR EMISSIONS FROM BIOLOGICAL
TREATMENT SYSTEMS (Fet Values)
(use with Section 2.5.3)

Henry’s Law Constant	Fet Value
0.002	0.001
0.004	0.002
0.006	0.003
0.01	0.005
0.014	0.007
0.02	0.010
0.03	0.015
0.04	0.020
0.05	0.25
0.06	0.030
0.07	0.035
0.08	0.040
0.09	0.045
0.1	0.050
0.158	0.060
0.22	0.070
0.27	0.080
0.28	0.090
0.285	0.10
0.288	0.11
0.354	0.12
0.45	0.13
0.5	0.14
0.55	0.15
0.628	0.16

TABLE 5--Continued

Henry’s Law Constant	Fet Value
0.71	0.17
0.85	0.18
1.01	0.19
1.10	0.20
1.2	0.21
1.3	0.22
1.75	0.23
1.93	0.24
2.03	0.25
2.3	0.26
2.6	0.27
2.8	0.28
2.9	0.29
3	0.30
3.3	0.31
4.17	0.33
4.6	0.35
8	0.37
9.6	0.39
11	0.40
13	0.41
15	0.43
16	0.44
17	0.45
75	0.47
144	0.50

TABLE 5--Concluded

Henry’s Law Constant	Fet Value
206	0.52
411	0.54
500	0.56
615	0.58
716	0.60
811	0.62
1000	0.64
4000	0.66
8000	0.68
9000	0.70
11000	0.72
12000	0.74
20000	0.76
30000	0.78
50000	0.80
210000	0.82

FORM 1 OF APPENDIX J--CALCULATION OF THE HENRY'S LAW CONSTANT AT 25°C FOR A COMPOUND IN A SEALED BATCH TEST (i.e., Two Phase Closed System) (use with Section 2.1.3.1 and 2.4.3.1.1)

NAME OF THE FACILITY _____
WASTE STREAM IDENTIFICATION _____
COMPOUND _____
REACTOR HEADSPACE VOLUME, (L) 1 _____
REACTOR LIQUID VOLUME (L) 2 _____
TEMPERATURE of the liquid in the unit (deg.C) 3 _____

A Data set	B Time (hr)	C Liquid Conc. (mg/L)	D Gas Conc. (mg/L)	E Keq D/C
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____

Temperature in degrees Kelvin.
Add 273.16 to the number on line 3. 4 _____
Molar ratio. Multiply the number on line 4 by 4.555. 5 _____
Henry's law value (mg/L gas per mg/L liquid).
The average value in column E. 6 _____
Henry's law value (mole fract. gas per mole fract. liquid)
Multiply line 6 by line 5. 7 _____

FORM 2 OF APPENDIX J--DATA FORM FOR THE CALCULATION OF THE HENRY'S LAW CONSTANT AT 25°C FROM THE STRIPPING IN AN AERATED BATCH TEST (i.e., open system) (use with Section 2.1.3.2 and 2.4.3.1.2).

NAME OF THE FACILITY _____
WASTE STREAM IDENTIFICATION _____
COMPOUND _____
Concentration basis (liquid or gas) _____

TEMPERATURE of the liquid in the unit (deg.C) 1_____
GAS FLOW RATE (L/hr) 2 _____
LIQUID VOLUME (L) 3_____
Co concentration measurement at time=0 (mg/L) 4_____

A data point	B time (hr)	C Concentration, C (mg/L)	D C/Co	E -ln(C/Co)
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____

CALCULATIONS. Use additional lines as needed in an expansion of the above table. Plot the values in column E (y axis) vs the data in column B (x axis). Reject outliers. Curve fit with a straight line. Calculate the slope and enter the slope on line 7.

Temperature in degrees Kelvin.
Add 273.16 to the number on line 1. 5_____
MOLAR RATIO. Multiply the number on line 5 by 4.555. 6_____
Slope of the plot of -ln(C/Co) vs time (per hour) 7_____

Calculated Keq value (mg/L gas per mg/L liquid). Divide the number on line 7 by the number on line 2 and multiply the results by the number on line 3.
Enter the results on line 8. 8_____

Henry's law value (mole fract. gas per mole fract. liquid)
Multiply the number on line 8 by the number on line 6. 9_____

FORM 3 OF APPENDIX J--HOW TO SUBTRACT A CHEMICAL FROM A METHOD 25D CONCENTRATION
(use with Section 2.3)

NAME OF THE FACILITY _____
STREAM IDENTIFICATION _____

1. Report the average value of the Method 25D samples. You must take at least the minimum number of samples required by the referencing subpart. Report the results for each sample taken (ppmw). If you include any samples, you must explain why the samples should not be included in the average.

Measurements of volatile content with EPA Method 25D
Enter each result on lines 1-5 (ppmw)

1_____
2_____
3_____
4_____
5_____

2. Report average value of Method 25D results.

Average value of Method 25D - results (ppmw)	1.	

3. Subtract from average value of Method 25D samples.

No.	Chemical (A)	Concentration (ppmw) (B)	FM M25D (C)	FM Adjusted Concentration (ppmw) (D) = (B)*(C)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

12				
13				
14				
15				
16				
17				
18				
19				

2.	Sum of adjusted concentrations.
3.	Total Method 25D concentration adjusted to subtract chemicals Subtract Line 2 from Line 1 (Do not enter less than zero)

FORM 4 OF APPENDIX J--EXAMPLE OF HOW TO SUBTRACT A CHEMICAL FROM A METHOD 25D CONCENTRATION (use with Section 2.3)

NAME OF THE FACILITY Plant A
STREAM IDENTIFICATION Waste 3A

1. Report the average value of the Method 25D samples. You must take at least the minimum number of samples required by the referencing subpart. Report the results for each sample taken (ppmw). If you include any samples, you must explain why the samples should not be included in the average.

Measurements of volatile content with EPA Method 25D		100
Enter each result on lines 1-5 (ppmw)	2	57
	3	88
	4	110
	5	

2. Report average value of Method 25D results.

Average value of Method 25D - results (ppmw)	1.	88.75

3. Subtract from average value of Method 25D samples.

No.	Chemical (A)	Concentration (ppmw) (B)	FM M25D (C)	FM Adjusted Concentration (ppmw) (D) = (B)*(C)
1	Dichlorophenol 2,5	150	0.151	22.65

Sum of adjusted concentrations.	2.	22.65
Total Method 25D concentration adjusted to subtract chemicals. Subtract Line 2 from Line 1 (Do not enter less than zero.)	3.	66.1

FORM 5 OF APPENDIX J--HOW TO CALCULATE A HENRY'S LAW CONSTANT FROM A HENRY'S LAW CONSTANT AT A DIFFERENT TEMPERATURE FOR THE SAME CHEMICAL
(use with Sections 2.1.4, 2.4.3.2, and 2.6)

NAME OF THE FACILITY		
CHEMICAL FOR EVALUATION		
MEASURED HENRY'S LAW CONSTANT (atm/mol fraction)	1	
MEASUREMENT TEMPERATURE (deg.C)	2	
ADJUSTMENT TEMPERATURE FOR HENRY'S LAW CONSTANT (deg.C)	3	
WATER8 PREDICTED HENRY'S LAW CONSTANT AT THE MEASUREMENT TEMPERATURE	4	
WATER8 PREDICTED HENRY'S LAW CONSTANT AT THE ADJUSTMENT TEMPERATURE	5	
RATIO OF HENRY'S LAW CONSTANTS. DIVIDE THE NUMBER ON LINE 5 BY THE NUMBER ON LINE 4.	6	
ADJUSTED HENRY'S LAW CONSTANT. MULTIPLY THE NUMBER ON LINE 6 BY THE NUMBER ON LINE 1.	7	

Discuss the assumptions and data inputs used for WATER8

FORM 6 OF APPENDIX J--GENERAL SYSTEM SPECIFICATIONS
(use with Section 2.5.2)

You must use site-specific values for parameters 5, 6, and 10.

5 Humidity of inlet air (%) _____

6 Temperature of air (°C) _____

10 Wind velocity (cm/s at 10 m) _____

For the rest of items, you may use the default values in WATER8 or site-specific values. You should document the methods used. You only have to report site-specific data on this form; you do not have to report the WATER8 default values.

1 Total water added at the unit (l/s) _____

2 Area of openings at unit (cm^2) _____

3 Radius of drop pipe (cm) _____

4 Drop length to conduit (cm) _____

7 Drain air velocity (ft/min) _____

8 manhole air velocity (ft/min) _____

9 Conduit air velocity (ft/min) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

13 friction factor liquid _____

14 friction factor gas _____

15 radius of underflow conduit (cm) _____

16 Underflow Temperature (°C) _____

17 oscillation cycle time (min) _____

18 design collection velocities (ft/s) _____

19 design branch line fraction full _____

20 fraction of wind speed on open drains _____

21 number of iterations for calculations _____

22 Specified line vent rates, =1 _____

23 iterations in vent convergence pass _____

24 number of passes in vent conv. _____

25 allowable vent error _____

26 acceleration factor for vent convergence _____

27 change in pressure _____

28 oil molecular weight _____

29 oil density (g/cc) _____

FORM 7 OF APPENDIX J--DESCRIPTION OF GENERAL COLLECTION ELEMENTS
(use with Section 2.5.2)

Applicable units include closed trenches, open hub drains, covered drains, openings in a conduit, and manhole covers. Waste may be added either at the unit or through a drop pipe. Each unit has a potential vent or waste addition, followed by an enclosed conduit that ends at the next downstream unit.

1 Description of unit _____

2 Underflow Temperature (°C) _____

3 Total water added at the unit (l/s) _____

The following three specifications refer to the potential vent or waste drop pipe.

4 Area of openings at unit (cm^2) _____

5 Radius of drop pipe (cm) _____

6 Drop length to conduit (cm) _____

The term open surface refers to the surface near the vent or waste addition.

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

The following three specifications refer to the enclosed conduit downstream of the unit.

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

The specified air velocity is only used if Form 6 general

system specification 22 equals 1.

16 velocity air at opening (ft/min) _____

17 municipal waste in conduit =1 _____

18 Assume equilibrium in unit, =1 _____

If waste is added at the unit, specify the waste number.

The waste composition is described elsewhere.

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 8 OF APPENDIX J--THE DESCRIPTION OF OPEN TRENCHES (use with Section 2.5.2)

1 Description of unit _____

2 Underflow T (°C) _____

3 Total water added at the unit (l/s) _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 width of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 9 OF APPENDIX J--THE DESCRIPTION OF AN OPEN SUMP
(use with Section 2.5.2)

1 Description of unit _____

2 Underflow Temperature (°C) _____

3 Total water added at the unit (l/s) _____

4 Area of openings at unit (cm^2) _____

5 Radius of drop pipe (cm) _____

6 Drop length to conduit (cm) _____

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

13 area of surface(cm^2) _____

14 flow entrance depth under surface (cm) _____

15 depth of liquid in sump (cm) _____

16 velocity air at opening (ft/min) _____

17 municipal waste in conduit =1 _____

18 Assume equilibrium in unit, =1 _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 10 OF APPENDIX J--THE DESCRIPTION OF AN OPEN J DRAIN
(use with Section 2.5.2)

1 Description of unit _____

2 Underflow Temperature (°C) _____

3 Total water added at the unit (l/s) _____

4 distance to trap liquid surface (cm) _____

5 Radius of drop pipe (cm) _____

6 Drop length to conduit (cm) _____

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

13 depth of water level (cm) _____

14 displacement in oscillation (cm) _____

17 municipal waste in conduit =1 _____

18 Assume equilibrium in unit, =1 _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 11 OF APPENDIX J--THE DESCRIPTION OF SEALED COLLECTION ELEMENTS
(use with Section 2.5.2)

1 Description of unit _____

2 Underflow Temperature © _____

3 Total water added at the unit (l/s) _____

4 Area of openings at unit (cm^2) _____

5 Radius of drop pipe (cm) _____

6 Drop length to conduit (cm) _____

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

17 municipal waste in conduit =1 _____

18 Assume equilibrium in unit, =1 _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 12 OF APPENDIX J--THE DESCRIPTION OF WEIRS AND WATERFALLS
(use with Section 2.5.2).

1 Description of unit _____

2 Underflow Temperature (°C) _____

3 Total water added at the unit (l/s) _____

4 waterfall width at surface (m) _____

5 waterfall drop height (cm) _____

6 tailwater depth (m) _____

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

FORM 13 OF APPENDIX J--THE DESCRIPTION OF LIFT STATIONS (use with Section 2.5.2).

1 Description of unit _____

2 Underflow Temperature (°C) _____

3 Total water added at the unit (l/s) _____

4 Area of openings at unit (cm^2) _____

5 Radius of drop pipe (cm) _____

6 Drop length to conduit (cm) _____

7 Open surface=1 _____

8 Subsurface entrance=1 _____

9 subsurface exit =1 _____

10 radius of underflow conduit (cm) _____

11 distance to next unit (cm) _____

12 slope of underflow conduit _____

13 fractional approach to equilibrium _____

14 If covered, then enter 1 _____

19 waste 1 added to system at unit number _____

20 waste 2 added to system at unit number _____

21 waste 3 added to system at unit number _____

DEFINITIONS OF TERMS

area of openings at unit(cm^2) The area that can vent headspace gas or permit outside air to enter the collection system. This area is generally less than or equal to the area of the drop pipe opening.

area of surface(cm^2)(sump) The area of the surface exposed to the wind or to the headspace in a sump. This area generally corresponds to the physical area of the sump exposed surface horizontal cross-section.

assume equilibrium in unit, =1 If condition are present in the unit such that equilibrium is expected (agitated surface, sealed waterfall, splash loading, low gas and liquid flow, or other factors) enter a 1 as a computer flag.

cover An enclosure that prevents the exchange of ambient air and the headspace air. If there are openings in the cover, then air may be exchanged with the headspace air. The openings in the cover are specified as area of openings at unit.

covered, then enter 1 The input value is a computer program flag that specifies that the unit is sealed and outside wind will not blow across the surface of the liquid in the unit.

If the unit is covered, this does not indicate that the surface of the liquid is not exposed to headspace gas.

depth of liquid in sump (cm) The depth in centimeters from the top of the liquid surface in the sump to the base of the sump. The depth is always positive.

depth of water level (cm) (J trap) The depth in centimeters from the top of the liquid surface in the water seal to the base of the water seal. This depth is always positive and would correspond to the wet distance on a dip-stick. This variable may be used for periodically active hubs.

description of unit This is a general description that identifies the unit that is being specified. Examples can include “Tank A45", “Drain E-17", “Sewer WW4", or other description. This description will appear on some of the reports.

displacement in oscillation (cm) (J trap) Distance of surface level fluctuation in the J trap. The value of the displacement is used in an air emission model to estimate air exchange.

distance to next unit (cm) The distance of the run of the underflow conduit that connects the unit to the next unit downstream.

distance to trap liquid surface (cm)(J trap) The depth in centimeters from the top of the open hub top to the liquid surface within the J trap. The depth is always positive and would correspond to the dry distance on a dip-stick.

drop length to conduit (cm) The length in centimeters from the top of the hub in the drop pipe to the typical liquid surface in the underflow conduit. The length is always positive.

drop length to conduit (cm)(J trap) The length in centimeters from the water seal in the J trap to the typical liquid surface in the underflow conduit. The length is always positive.

flow entrance depth under surface (cm) The length between the surface of the liquid in the sump and the base of the inlet conduit. This length is always positive and represents the effective depth of flow for the mass transfer model.

fractional approach to equilibrium The fraction of equilibrium between the liquid and the headspace in the lift station unit. The lift station model uses this value as an input parameter because analysis of laboratory data indicated that the vent gas in an enclosed unit with a waterfall was approximately 50% of the equilibrium value.

For water falling in a more open unit, consider using the waterfall unit instead of the lift station model.

headspace The headspace is the air over the wastewater in the enclosed underflow conduit.

municipal waste in conduit =1 The input value is a computer program flag which identifies which mass transfer model is used for the calculations. A value of zero is the default value and the mass transfer is calculated using the trench model correlation derived from Owens. A value of 1 would calculate mass transfer through the Parkhurst-Pomeroy correlation for municipal sewers. Additional options for mass transfer options may be added in the future.

open surface=1 The input value is a computer program flag which indicates that the surface of the unit receiving the waste is open to the atmosphere. Zero is the default value (closed unit). Many of the collection system units have this option for flexibility. This flag does not refer to the underflow conduit, only to the units. The flow of headspace in the drop pipe will be of less importance if the drop pipe connects to a unit that is open.

open surface=1 (J trap) The input value is a computer program flag which indicates that the surface of the unit receiving the waste is open to the atmosphere. Zero is the

default value, and it is considered very unusual to use an open J trap for discharge into an unit with an exposed surface.

open surface=1 (sump) The input value is a computer program flag which indicates that the surface of the unit receiving the waste is open to the atmosphere. Zero is the default value, and a value of 1 indicates that there are potential air emissions from wind blowing across the surface. Grates and perforated covers are considered characteristic of an open surface.

oscillation cycle time (min) The cycle time or period of the water level rise and drop in an open water trap. Variations in the internal headspace pressure will cause water level oscillations.

radius of drop pipe (cm) The radius in centimeters in the drop pipe that connects the hub to the unit. There is no water seal on the drop pipe (see J trap).

radius of drop pipe (cm) (J trap) The radius in centimeters in the drop pipe forming a water seal in the J trap. The drop pipe connects the hub to the water seal in the J trap.

radius of underflow conduit (cm) One half the diameter of a circular exiting pipe that connects the unit to the next

unit downstream. This pipe is considered closed and not exposed to leaks and air exchange with the environment during the run of the pipe. If the conduit is not closed, consider the trench model.

rise The difference in elevation in an underflow conduit that connects collection system units.

run The path in an underflow conduit that connects collection system units.

slope of underflow conduit The ratio of the rise to the run in the underflow conduit. The slope is always positive and measured from downstream to upstream in each run.

subsurface entrance=1 This input value is a computer program flag which indicates that the headspace is blocked from flowing into or out of the upstream underflow conduits. A value of zero indicates that there is no headspace blockage.

subsurface exit =1 This input value is a computer program flag which indicates that the headspace is blocked from flowing into or out of the underflow conduit downstream. A value of zero indicates that there is no headspace blockage.

total water added at the unit (l/s) This is an optional specification of the total amount of water added to the

collection system at the unit. This specification is only used if water is added to the specified wastewater streams at the unit. This optional specification could be used if the total wastewater flow at the unit differed from the sum of the flows of the wastes upstream of the unit.

underflow conduit The exiting pipe or trench that connects the unit to the next unit downstream. This conduit may be (1) closed and not exposed to leaks and air exchange with the environment during the run of the pipe or (2) exposed to leaks and air exchange with the environment.

underflow Temperature (C) The entrance temperature of the liquid into the unit. The temperature of the waste stream is specified separately.

velocity air at opening (ft/min) The velocity of flow into the unit at the specified unit openings (see area of openings at unit). This value is only used if a special flag is set. (See Form 6 general specifications 22. specified line vent rates, =1)

waste added to system at unit number The input information of waste streams into the collection system units is accomplished by specifying the waste number. The waste

number refers to a data base element that includes the drop distance into the hub, the flow rate, the temperature, concentrations, the oil content and other information.

waterfall drop height (cm) The distance from the top of the waterfall to the tailwater surface level (unit liquid underflow level). This value is always positive.

waterfall: Open surface=1 The input value is a computer program flag which indicates that the waterfall is open to the atmosphere. Zero is the default value (waterfall is enclosed).

waterfall: tailwater depth (m) The depth of flow in the underflow conduit under the waterfall.

waterfall width at surface (m) The width of the waterfall across the at the upper liquid level. The flow rate is used with the width to estimate the thickness of the falling water film.