

**Appendix A**  
**Table 5—Physical and Toxicological Properties**  
**A. Organic Regulated Substances**

| Regulated Substance             | CAS        | RfDo<br>(mg/kg-d) |                | CSFo<br>(mg/kg-d) <sup>-1</sup> |      | RfCi<br>(mg/m <sup>3</sup> ) |     | IUR<br>(µg/m <sup>3</sup> ) <sup>-1</sup> |     | Koc     | VOC? | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |
|---------------------------------|------------|-------------------|----------------|---------------------------------|------|------------------------------|-----|---|-----|---------|------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|
| ACENAPHTHENE                    | 83-32-9    | 0.06              | I              |                                 |      |                              |     |   |     | 4900    | X    | 3.8                   | 1,5,6                                 | 17220                             | 20833                                |                   | 279                             | 1.24   |
| ACENAPHTHYLENE                  | 208-96-8   | 0.06              | S <sup>1</sup> |                                 |      |                              |     |   |     | 4500    | X    | 16.1                  | 5,6,7                                 | 16493                             | 19776                                |                   | 280                             | 2.11   |
| ACEPHATE                        | 30560-19-1 | 0.0012            | O              |                                 |      |                              |     |   |     | 3       |      | 818000                | 6                                     |                                   |                                      |                   | 340                             |  |
| ACETALDEHYDE                    | 75-07-0    |                   |                |                                 |      | 0.009                        | I   | 0.0000022                                 | I   | 4.1     | X    | 1000000               | 1                                     | 13010                             | 14945                                | X                 | 20                              |  |
| ACETONE                         | 67-64-1    | 0.9               | I              |                                 |      | [31]                         | [D] |   |     | 0.31    | X    | 1000000               | 1                                     | 13007                             | 14942                                | X                 | 56                              | 18.07  |
| ACETONITRILE                    | 75-05-8    |                   |                |                                 |      | 0.06                         | I   |   |     | 0.5     | X    | 1000000               | 1                                     | 13020                             | 14958                                | X                 | 82                              | 4.50   |
| ACETOPHENONE                    | 98-86-2    | 0.1               | I              |                                 |      |                              |     |   |     | 170     |      | 5500                  | 1                                     |                                   |                                      | X                 | 203                             |  |
| ACETYLAMINO-FLUORENE, 2- (2AAF) | 53-96-3    |                   |                | 3.8                             | C    |                              |     | 0.0013                                    | C   | 1600    |      | 10.13                 | 7                                     |                                   |                                      |                   | 303                             | 0.69   |
| ACROLEIN                        | 107-02-8   | 0.0005            | I              |                                 |      | 0.00002                      | I   |   |     | 0.56    | X    | 208000                | 1,2,4                                 | 13012                             | 14948                                | X                 | 53                              | 4.50   |
| ACRYLAMIDE                      | 79-06-1    | 0.002             | I              | 0.5                             | I    | 0.006                        | I   | 0.0001                                    | I   | 25      | X    | 2151000               | 4                                     | 12981                             | 14906                                |                   | 193                             |  |
| ACRYLIC ACID                    | 79-10-7    | 0.5               | I              |                                 |      | [0.001]                      | [I] |   |     | 29      | X    | 1000000               | 2                                     | 12978                             | 14902                                | X                 | 141                             | 1.39   |
| ACRYLONITRILE                   | 107-13-1   | [0.04]            | 0.01           | D                               | 0.54 | I                            |     | 0.000068                                  | I   | 11      | X    | 73500                 | 1                                     | 13004                             | 14939                                | X                 | 77                              | 5.50   |
| ALACHLOR                        | 15972-60-8 | 0.01              | I              | 0.056                           | C    |                              |     |   |     | 110     |      | 140                   | 2                                     |                                   |                                      |                   | 378                             |  |
| ALDICARB                        | 116-06-3   | 0.001             | I              |                                 |      |                              |     |   |     | 22      |      | 6000                  | 2                                     |                                   |                                      |                   | 287                             | 0.40   |
| ALDICARB SULFONE                | 1646-88-4  | 0.001             | I              |                                 |      |                              |     |   |     | 10      |      | 8000                  | 5                                     |                                   |                                      |                   | 317                             |  |
| ALDICARB SULFOXIDE              | 1646-87-3  | 0.001             | M              |                                 |      |                              |     |   |     | 0.22    |      | 330000                | 5                                     |                                   |                                      |                   | 307                             |  |
| ALDRIN                          | 309-00-2   | 0.00003           | I              | 17                              | I    |                              |     | 0.0049                                    | I   | 48000   |      | 0.02                  | 4,5,6                                 |                                   |                                      |                   | 330                             | 0.22   |
| ALLYL ALCOHOL                   | 107-18-6   | [0.005]           | [I]            |                                 |      | 0.0001                       | X   |   |     | 3.2     | X    | 1000000               | 2                                     | 13003                             | 14937                                | X                 | 97                              | 18.07  |
| AMETRYN                         | 834-12-8   | 0.009             | I              |                                 |      |                              |     |   |     | 389     |      | 185                   | 5                                     |                                   |                                      |                   | 345                             |  |
| AMINOBIIPHENYL, 4-              | 92-67-1    |                   |                | 21                              | C    |                              |     | 0.006                                     | C   | 110     |      | 1200                  | 5                                     |                                   |                                      |                   | 302                             | 18.07  |
| AMITROLE                        | 61-82-5    |                   |                | 0.94                            | C    |                              |     | 0.00027                                   | C   | 120     |      | 280000                | 4                                     |                                   |                                      |                   | 258                             | 0.69   |
| AMMONIA                         | 7664-41-7  | 0.85              | H              |                                 |      | 0.5                          | I   |   |     | 3       | X    | 310000                | 2,5,7                                 | 13098                             | 15059                                | X                 | -33                             |  |
| AMMONIUM SULFAMATE              | 7773-06-0  | 0.2               | I              |                                 |      |                              |     |   |     | 3       |      | 2160000               | 10                                    |                                   |                                      |                   | 603                             |  |
| ANILINE                         | 62-53-3    | 0.007             | P              | 0.0057                          | I    | 0.001                        | I   | 0.0000016                                 | C   | 190     | X    | 33800                 | 1                                     | 12959                             | 14876                                | X                 | 184                             |  |
| ANTHRACENE                      | 120-12-7   | 0.3               | I              |                                 |      |                              |     |   |     | 21000   | X    | 0.066                 | 1,5,6,7,8,9                           | 30838                             | 44562                                |                   | 340                             | 0.28   |
| ATRAZINE                        | 1912-24-9  | [0.035]           | [I]            | 0.23                            | C    |                              |     |   |     | 130     |      | 70                    | 2,4,5                                 |                                   |                                      |                   | 313                             |  |
| AZINPHOS-METHYL (GUTHION)       | 86-50-0    | 0.0015            | O              |                                 |      | 0.01                         | D   |   |     | 407.4   |      | 31.5                  | 1, 2                                  |                                   |                                      |                   | 421                             |  |
| BAYGON (PROPOXUR)               | 114-26-1   | 0.004             | I              |                                 |      |                              |     |   |     | 31      |      | 2000                  | 2,4,5                                 |                                   |                                      |                   | decomp.                         | 4.50   |
| BENOMYL                         | 17804-35-2 | 0.05              | I              | 0.0024                          | O    |                              |     |   |     | 1,900   |      | 2                     | 5                                     |                                   |                                      |                   | 520                             |  |
| BENTAZON                        | 25057-89-0 | 0.03              | I              |                                 |      |                              |     |   |     | 13      |      | 500                   | 2                                     |                                   |                                      |                   | 415                             |  |
| BENZENE                         | 71-43-2    | 0.004             | I              | 0.055                           | I    | 0.03                         | I   | 0.0000078                                 | I   | 58      | X    | 1780.5                | 1,2,3,4                               | 13053                             | 15000                                | X                 | 81                              | 0.35   |
| BENZIDINE                       | 92-87-5    | 0.003             | I              | 230                             | I    |                              |     | 0.067                                     | I   | 530,000 |      | 520                   | 1,2,4                                 |                                   |                                      |                   | 400                             | 15.81  |
| BENZO[A]ANTHRACENE              | 56-55-3    |                   |                | [0.7]                           | [X]  |                              |     | [0.00011]                                 | [C] | 350000  |      | 0.011                 | 1,5,6                                 |                                   |                                      |                   | 438                             | 0.19   |
| BENZO[A]PYRENE                  | 50-32-8    | 0.0003            | I              | 1                               | I    | 0.000002                     | I   | 0.0006                                    | I   | 910000  |      | 0.0038                | 1,5,6                                 |                                   |                                      |                   | 495                             | 0.24   |

<sup>1</sup>Aqueous solubility references are keyed to the numbered list found at § 250.304(f) (relating to MSCs for groundwater). Where there are multiple sources cited, the table value is the median of the values in the individual references.

<sup>2</sup>Values recommended by USEPA Superfund program in May 2021 memo "Recommendations on the Use of Chronic or Subchronic Noncancer Values for Superfund Human Health Risk Assessments."

Toxicity Value Sources:

C = California EPA

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TE = TERA ITER Peer-Reviewed Value

X = EPA Provisional Peer-Reviewed Toxicity Value Appendix

**R = EPA 1993 Relative Potency Factors**

S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

S<sup>3</sup> Endosulfan surrogate

S<sup>4</sup> Naphthalene surrogate

S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

S<sup>8</sup> Anthracene surrogate

S<sup>9</sup> O-Toluidine surrogate

S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate

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**A. Organic Regulated Substances**

| Regulated Substance          | CAS       | RfDo (mg/kg-d)      |                       | CSFo (mg/kg-d) <sup>1</sup> |          | RfCi (mg/m <sup>3</sup> ) |   | IUR (µg/m <sup>3</sup> ) <sup>1</sup> |          | Koc     | VOC? | Aqueous Sol (mg/L) | Aqueous Sol Reference <sup>1</sup> | TF Vol from Surface Soil | TF Vol from Subsurface Soil | Organic Liquid | Boiling Point (degrees C) | Degradation Coefficient (K) (yr <sup>-1</sup> ) |
|------------------------------|-----------|---------------------|-----------------------|-----------------------------|----------|---------------------------|---|---------------------------------------|----------|---------|------|--------------------|------------------------------------|--------------------------|-----------------------------|----------------|---------------------------|---|
|                              |           |                     |                       |                             |          |                           |   |                                       |          |         |      |                    |                                    |                          |                             |                |                           |   |
| BENZO[B]FLUORANTHENE         | 205-99-2  |                     |                       | [1.2]<br>0.1                | [C]<br>R |                           |   | [0.00011]<br>0.00006                  | [C]<br>R | 550000  |      | 0.0012             | 5,6,7                              |                          |                             |                | 357                       | 0.21  |
| BENZO[GHI]PERYLENE           | 191-24-2  | 0.06                | S <sup>1</sup>        |                             |          |                           |   |                                       |          | 2800000 |      | 0.00026            | 1,5,6                              |                          |                             |                | 500                       | 0.19  |
| BENZO[K]FLUORANTHENE         | 207-08-9  |                     |                       | [1.2]<br>0.01               | [C]<br>R |                           |   | [0.00011]<br>0.000006                 | [C]<br>R | 4400000 |      | 0.00055            | 5,6,7                              |                          |                             |                | 480                       | 0.06  |
| BENZOIC ACID                 | 65-85-0   | 4                   | I                     |                             |          |                           |   |                                       |          | 32      | X    | 2700               | 2,3,4,5                            | 12985                    | 14913                       |                | 249                       |   |
| BENZOTRICHLORIDE             | 98-07-7   |                     |                       | 13                          | I        |                           |   |                                       |          | 920     | X    | 53                 | 1,5,13                             | 13494                    | 15606                       | X              | 221                       | 121413.60                                       |
| BENZYL ALCOHOL               | 100-51-6  | 0.1                 | P                     |                             |          |                           |   |                                       |          | 100     |      | 40000              | 1,2,3                              |                          |                             | X              | 205                       |   |
| BENZYL CHLORIDE              | 100-44-7  | 0.002               | P                     | 0.17                        | I        | 0.001                     | P | 0.000049                              | C        | 190     | X    | 493                | 1                                  | 12940                    | 14846                       | X              | 179                       | 20.90   |
| BETA PROPIOLACTONE           | 57-57-8   |                     |                       | 14                          | C        |                           |   | 0.004                                 | C        | 4       | X    | 370000             | 2                                  | 13008                    | 14937                       | X              | 162                       | 0.01  |
| BHC, ALPHA                   | 319-84-6  | 0.008               | D                     | 6.3                         | I        |                           |   | 0.0018                                | I        | 1800    |      | 1.7                | 4,5,6,7                            |                          |                             |                | 288                       | 0.94  |
| BHC, BETA-                   | 319-85-7  |                     |                       | 1.8                         | I        |                           |   | 0.00053                               | I        | 2300    |      | 0.1                | 6                                  |                          |                             |                | 304                       | 1.02  |
| BHC, GAMMA (LINDANE)         | 58-89-9   | [0.0003]<br>0.00001 | [I]<br>D <sup>2</sup> | 1.1                         | C        |                           |   | 0.00031                               | C        | 1400    |      | 7.3                | 4,5,6                              |                          |                             |                | 323                       | 1.05  |
| BIPHENYL, 1,1-               | 92-52-4   | [0.05] 0.5          | I                     | 0.008                       | I        | 0.0004                    | X |                                       |          | 1,700   | X    | 7.2                | 1                                  | 14027                    | 16325                       |                | 255                       | 18.07   |
| BIS(2-CHLOROETHOXY)METHANE   | 111-91-1  | 0.003               | P                     |                             |          |                           |   |                                       |          | 61      |      | 100500             | 4,6,7,9,10,11                      |                          |                             | X              | 218                       |   |
| BIS(2-CHLOROETHYL)ETHER      | 111-44-4  |                     |                       | 1.1                         | I        |                           |   | 0.00033                               | I        | 76      | X    | 10200              | 1,4,5                              | 12942                    | 14849                       | X              | 179                       | 0.69  |
| BIS(2-CHLORO-ISOPROPYL)ETHER | 108-60-1  | 0.04                | I                     | 0.07                        | H        |                           |   | 0.00001                               | H        | 62      | X    | 1700               | 5                                  | 12947                    | 14856                       | X              | 189                       | 0.69  |
| BIS(CHLOROMETHYL)ETHER       | 542-88-1  |                     |                       | 220                         | I        |                           |   | 0.062                                 | I        | 16      | X    | 22000              | 6                                  | 12992                    | 14922                       | X              | 105                       | 57270.57  |
| BIS[2-ETHYLHEXYL]PHTHALATE   | 117-81-7  | 0.02                | I                     | 0.014                       | I        |                           |   | 0.0000024                             | C        | 87000   |      | 0.285              | 4,5,6                              |                          |                             | X              | 384                       | 0.65  |
| BISPHENOL A                  | 80-05-7   | 0.05                | I                     |                             |          |                           |   |                                       |          | 1,500   |      | 120                | 4                                  |                          |                             |                | 220                       | 0.69  |
| BROMACIL                     | 314-40-9  | 0.1                 | M                     |                             |          |                           |   |                                       |          | 58      |      | 815                | 2                                  |                          |                             |                | 421                       |   |
| BROMOBENZENE                 | 108-86-1  | 0.008               | I                     |                             |          | 0.06                      | I |                                       |          | 268     | X    | 445                | 1,2                                | 12954                    | 14866                       | X              | 156.1                     |   |
| BROMOCHLOROMETHANE           | 74-97-5   | 0.01                | M                     |                             |          | 0.04                      | X |                                       |          | 27      | X    | 16700              | 4                                  | 13007                    | 14942                       | X              | 68                        |   |
| BROMODICHLOROMETHANE         | 75-27-4   | [0.02] 0.008        | [I]<br>P <sup>2</sup> | 0.062                       | I        |                           |   | 0.000037                              | C        | 93      | X    | 4500               | 6                                  | 12984                    | 14910                       | X              | 87                        |   |
| BROMOMETHANE                 | 74-83-9   | 0.0014              | I                     |                             |          | 0.005                     | I |                                       |          | 170     | X    | 17500              | 2                                  | 13039                    | 14981                       | X              | 4                         | 6.66  |
| BROMOXYNIL                   | 1689-84-5 | 0.015               | O                     | 0.103                       | O        |                           |   |                                       |          | 300     |      | 130                | 2                                  |                          |                             |                | 329                       |   |
| BROMOXYNIL OCTANOATE         | 1689-99-2 | 0.015               | O                     | 0.103                       | O        |                           |   |                                       |          | 18,000  |      | 0.08               | 12                                 |                          |                             |                | 414                       | 5.75  |
| BUTADIENE, 1,3-              | 106-99-0  |                     |                       | 0.6                         | C        | 0.002                     | I | 0.00003                               | I        | 120     | X    | 735                | 1                                  | 13115                    | 15041                       | X              | -4.5                      | 4.50  |
| BUTYL ALCOHOL, N-            | 71-36-3   | 0.1                 | I                     |                             |          |                           |   |                                       |          | 3.2     | X    | 74000              | 1                                  | 12998                    | 14930                       | X              | 118                       | 4.68  |
| BUTYLATE                     | 2008-41-5 | 0.05                | I                     |                             |          |                           |   |                                       |          | 540     | X    | 45                 | 2                                  | 13430                    | 15519                       | X              | 138                       |   |
| BUTYLBENZENE, N-             | 104-51-8  | 0.05                | P                     |                             |          |                           |   |                                       |          | 2,500   | X    | 15                 | 1,6,7                              | 12943                    | 14851                       | X              | 183                       |   |
| BUTYLBENZENE, SEC-           | 135-98-8  | 0.1                 | X                     |                             |          |                           |   |                                       |          | 890     | X    | 17                 | 1,6,7                              | 12983                    | 14910                       | X              | 174                       |   |
| BUTYLBENZENE, TERT-          | 98-06-6   | 0.1                 | X                     |                             |          |                           |   |                                       |          | 680     | X    | 30                 | 1,6,7                              | 12979                    | 14904                       | X              | 169                       |   |
| BUTYLBENZYL PHTHALATE        | 85-68-7   | 0.2                 | I                     | 0.0019                      | P        |                           |   |                                       |          | 34000   |      | 2.69               | 4,5,6                              |                          |                             | X              | 370                       | 1.39  |
| CAPTAN                       | 133-06-2  | 0.13                | I                     | 0.0023                      | C        |                           |   | 0.00000066                            | C        | 200     |      | 0.5                | 4                                  |                          |                             |                | 259                       | 589.39  |
| CARBARYL                     | 63-25-2   | 0.1                 | I                     |                             |          |                           |   |                                       |          | 190     |      | 120                | 2,4,5                              |                          |                             |                | 315                       | 4.22  |

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Toxicity Value Appendix

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**Factors**

S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

S<sup>3</sup> Endosulfan surrogate

S<sup>4</sup> Naphthalene surrogate

S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

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|---------------------------------------|------------|---------------------------------|------------------------------------|------------------------------|---|---------------------------------------|------------------------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|-------|-----|-------|------|
| CARBAZOLE                             | 86-74-8    |                                 | 0.02                               | H                            |   | 2,500                                 |                        | 1.2                   | 1,5,6                                 |                                   |                                      |                   | 355                             |  |       |     |       |      |
| CARBOFURAN                            | 1563-66-2  | 0.005                           | I                                  |                              |   | 43                                    |                        | 700                   | 2                                     |                                   |                                      |                   | 311                             |  |       |     |       |      |
| CARBON DISULFIDE                      | 75-15-0    | 0.1                             | I                                  |                              | 0.7                                       | I                                     | 300                    | X                     | 2100                                  | 1,2,3                             | 13022                                | 14961             | X                               | 46   |       |     |       |      |
| CARBON TETRACHLORIDE                  | 56-23-5    | 0.004                           | I                                  | 0.07                         | I   | I                                     | 160                    | X                     | 795                                   | 1,2,3                             | 13117                                | 15083             | X                               | 77   |       |     |       |      |
| CARBOXIN                              | 5234-68-4  | 0.1                             | I                                  |                              |   |                                       | 260                    |                       | 170                                   | 5,6,8                             |                                      |                   | 407                             | 0.07   |       |     |       |      |
| CHLORAMBEN                            | 133-90-4   | 0.015                           | I                                  |                              |   |                                       | 20                     |                       | 700                                   | 2                                 |                                      |                   | 210                             |  |       |     |       |      |
| CHLORDANE                             | 57-74-9    | 0.0005                          | I                                  | 0.35                         | I   | 0.0007                                | I                      | 0.0001                | I                                     | 98000                             |                                      |                   | 351                             | 0.09   |       |     |       |      |
| CHLORO-1,1-DIFLUOROETHANE, 1-         | 75-68-3    |                                 |                                    |                              | 50  | I                                     | 22                     | X                     | 1400                                  | 4                                 | 13117                                | 15041             | X                               | -9   |       |     |       |      |
| CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE) | 107-05-1   |                                 | 0.021                              | C                            | 0.001                                     | I                                     | 0.000006               | C                     | 48                                    | X                                 | 3300                                 | 1,3,5,7,10        | 13142                           | 15116  | X     | 45  | 18.07 |      |
| CHLOROACETALDEHYDE                    | 107-20-0   |                                 | 0.27                               | X                            |   |                                       | 3.2                    | X                     | 1000000                               | 9                                 | 13004                                | 14938             | X                               | 85   |       |     |       |      |
| CHLOROACETOPHENONE, 2-                | 532-27-4   |                                 |                                    |                              | 0.00003                                   | I                                     | 76                     |                       | 1100                                  | 3                                 |                                      |                   | 247                             | 4.50   |       |     |       |      |
| CHLOROANILINE, P-                     | 106-47-8   | <b>[0.004]</b><br><b>0.0005</b> | <b>[I]</b><br><b>P<sup>2</sup></b> | 0.2                          | P   |                                       | 460                    | X                     | 3900                                  | 1                                 | 13139                                | 15127             |                                 | 232  |       |     |       |      |
| CHLOROBENZENE                         | 108-90-7   | 0.02                            | I                                  |                              | 0.05                                      | P                                     | 200                    | X                     | 490                                   | 3                                 | 12992                                | 14922             | X                               | 132  | 0.84  |     |       |      |
| CHLOROBENZILATE                       | 510-15-6   | 0.02                            | I                                  | 0.11                         | C   |                                       | 0.000031               | C                     | 2600                                  | 13                                | 4                                    |                   | 415                             | 3.60   |       |     |       |      |
| CHLOROBUTANE, 1-                      | 109-69-3   | 0.04                            | P                                  |                              |   |                                       | 580                    | X                     | 680                                   | 1,2,3,4                           | 13007                                | 14942             | X                               | 79   |       |     |       |      |
| CHLORODIBROMOMETHANE                  | 124-48-1   | 0.02                            | I                                  | 0.084                        | I   |                                       | 83                     | X                     | 4200                                  | 4,6,7,9                           | 12973                                | 14895             | X                               | 116  | 1.39  |     |       |      |
| CHLORODIFLUOROMETHANE                 | 75-45-6    |                                 |                                    |                              | 50  | I                                     | 59                     | X                     | 2899                                  | 4                                 | 13141                                | 15113             | X                               | -41  |       |     |       |      |
| CHLOROETHANE                          | 75-00-3    |                                 |                                    |                              | <b>[10] 4</b>                             | <b>[I]</b><br><b>P<sup>2</sup></b>    | 42                     | X                     | 5700                                  | 1                                 | 13101                                | 15038             | X                               | 12   | 4.50  |     |       |      |
| CHLOROFORM                            | 67-66-3    | 0.01                            | I                                  | 0.031                        | C   | 0.3                                   | C                      | 0.000023              | I                                     | 56                                | X                                    | 8000              | 1,2,3                           | 13044  | 14988 | X   | 61    | 0.01 |
| CHLORONAPHTHALENE, 2-                 | 91-58-7    | 0.08                            | I                                  |                              |   |                                       | 8500                   | X                     | 11.7                                  | 1                                 | 19021                                | 23532             |                                 | 256  |       |     |       |      |
| CHLORONITROBENZENE, P-                | 100-00-5   | 0.0007                          | P                                  | 0.06                         | P   | 0.002                                 | P                      |                       | 480                                   | X                                 | 220                                  | 1                 | 13190                           | 15196  |       | 242 |       |      |
| CHLOROPHENOL, 2-                      | 95-57-8    | 0.005                           | I                                  |                              |   |                                       | 400                    | X                     | 24000                                 | 1,3,4                             | 13053                                | 15009             | X                               | 175  |       |     |       |      |
| CHLOROPRENE                           | 126-99-8   | 0.02                            | H                                  |                              | 0.02                                      | I                                     | 0.0003                 | I                     | 50                                    | X                                 | 1736                                 | 9                 | 13116                           | 15075  | X     | 59  | 0.69  |      |
| CHLOROPROPANE, 2-                     | 75-29-6    |                                 |                                    |                              | 0.1001                                    | H                                     | 260                    | X                     | 3100                                  | 1,3,5                             | 13055                                | 15002             | X                               | 47   |       |     |       |      |
| CHLOROTHALONIL                        | 1897-45-6  | 0.015                           | I                                  | 0.017                        | C   |                                       | 980                    |                       | 0.6                                   | 2                                 |                                      |                   | 350                             |  |       |     |       |      |
| CHLOROTOLUENE, O-                     | 95-49-8    | 0.02                            | I                                  |                              |   |                                       | 760                    | X                     | 422                                   | 1,4,5                             | 12941                                | 14848             | X                               | 159  |       |     |       |      |
| CHLOROTOLUENE, P-                     | 106-43-4   | 0.02                            | X                                  |                              |   |                                       | 375                    | X                     | 106                                   | 12                                | 12961                                | 14877             | X                               | 162  |       |     |       |      |
| CHLORPYRIFOS                          | 2921-88-2  | 0.001                           | D                                  |                              |   |                                       | 4600                   |                       | 1.12                                  | 2,4,6,7                           |                                      |                   | 377                             |  |       |     |       |      |
| CHLORSULFURON                         | 64902-72-3 | <b>[0.02] 0.05</b>              | O                                  |                              |   |                                       | 11                     |                       | 192                                   | 2,5,6,8,9                         |                                      |                   | 531                             |  |       |     |       |      |
| CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)   | 1861-32-1  | 0.01                            | I                                  |                              |   |                                       | 6,500                  |                       | 0.5                                   | 2,5,7                             |                                      |                   | 360                             | 1.37   |       |     |       |      |
| CHRYSENE                              | 218-01-9   |                                 | <b>[0.12]</b><br><b>0.001</b>      | <b>[C]</b><br><b>R</b>       |   | <b>[0.000011]</b><br><b>0.0000006</b> | <b>[C]</b><br><b>R</b> | 490000                | 0.0019                                | 1                                 |                                      |                   | 448                             | 0.13   |       |     |       |      |
| CRESOL(S)                             | 1319-77-3  | 0.1                             | D                                  |                              | 0.06                                      | C                                     | 25                     | X                     | 20000                                 | 2                                 | 12976                                | 14899             | X                               | 139  | 5.16  |     |       |      |
| CRESOL, DINITRO-O-, 4,6-              | 534-52-1   | 0.00008                         | X                                  |                              |   |                                       | 257                    | X                     | 150                                   | 4                                 | 13025                                | 14970             |                                 | 312  | 6.02  |     |       |      |
| CRESOL, O- (METHYLPHENOL, 2-)         | 95-48-7    | 0.05                            | I                                  |                              |   |                                       | 22                     | X                     | 2500                                  | 3,5,6                             | 12974                                | 14896             |                                 | 191  | 18.07 |     |       |      |

<sup>1</sup>Aqueous solubility references are keyed to the numbered list found at § 250.304(f) (relating to MSCs for groundwater). Where there are multiple sources cited, the table value is the median of the values in the individual references.

<sup>2</sup>Values recommended by USEPA Superfund program in May 2021 memo "Recommendations on the Use of Chronic or Subchronic Noncancer Values for Superfund Human Health Risk Assessments."

Toxicity Value Sources:

C = California EPA

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Toxicity Value Appendix

**R = EPA 1993 Relative Potency**

**Factors**

S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

S<sup>3</sup> Endosulfan surrogate

S<sup>4</sup> Naphthalene surrogate

S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

S<sup>8</sup> Anthracene surrogate

S<sup>9</sup> O-Toluidine surrogate

S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate

**Appendix A**  
**Table 5—Physical and Toxicological Properties**  
**A. Organic Regulated Substances**

| Regulated Substance                      | CAS        | RfDo<br>(mg/kg-d)  | CSFo<br>(mg/kg-d) <sup>-1</sup> | RfCi<br>(mg/m <sup>3</sup> ) | IUR<br>(µg/m <sup>3</sup> ) <sup>-1</sup> | Koc     | VOC? | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol<br>from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |       |       |     |      |
|--|------------|--------------------|---------------------------------|------------------------------|---|---------|------|-----------------------|---------------------------------------|--------------------------------------|--------------------------------------|-------------------|---------------------------------|--|-------|-------|-----|------|
| CRESOL, M (METHYLPHENOL, 3-)             | 108-39-4   | 0.05               | I                               |                              |   | 35      |      | 2500                  | 2                                     |                                      |                                      | X                 | 202                             | 5.16   |       |       |     |      |
| CRESOL, P (METHYLPHENOL, 4-)             | 106-44-5   | [0.005] 0.02       | [H]<br>P                        |                              |   | 49      |      | 22000                 | 6                                     |                                      |                                      |                   | 202                             | 9.03   |       |       |     |      |
| CRESOL, P-CHLORO-M-                      | 59-50-7    | 0.1                | X                               |                              |   | 780     |      | 3846                  | 2                                     |                                      |                                      |                   | 235                             |  |       |       |     |      |
| CROTONALDEHYDE                           | 4170-30-3  | 0.001              | S <sup>2</sup>                  | 1.9                          | S <sup>2</sup>                            | 5.6     | X    | 180000                | 3                                     | 12998                                | 14931                                | X                 | 104                             | 18.07  |       |       |     |      |
| CROTONALDEHYDE, TRANS-                   | 123-73-9   | 0.001              | P                               | 1.9                          | H   | 6.1     | X    | 156000                | 1                                     | 13006                                | 14940                                | X                 | 104                             | 18.07  |       |       |     |      |
| CUMENE (ISOPROPYL BENZENE)               | 98-82-8    | 0.1                | I                               |                              |   | 0.4     | I    | 2800                  | X                                     | 50                                   | 1,5,6                                | 12940             | 14846                           | X  | 152   | 15.81 |     |      |
| CYANAZINE                                | 21725-46-2 | 0.002              | H                               | 0.84                         | H   | 199     |      | 171                   |                                       | 2,5                                  |                                      |                   | 369                             |  |       |       |     |      |
| CYCLOHEXANE                              | 110-82-7   |                    |                                 |                              |   | 6       | I    | 479                   | X                                     | 55                                   | 1,2,4,5,6                            | 13140             | 15112                           | X  | 81    |       |     |      |
| CYCLOHEXANONE                            | 108-94-1   | 5                  | I                               |                              |   | 0.7     | P    | 66                    | X                                     | 36500                                | 1,2,4,5                              | 12949             | 14858                           | X  | 157   |       |     |      |
| CYFLUTHRIN                               | 68359-37-5 | 0.025              | I                               |                              |   | 130,000 |      | 0.001                 |                                       | 2                                    |                                      |                   | 448                             |  |       |       |     |      |
| CYROMAZINE                               | 66215-27-8 | 0.5                | O                               |                              |   | 1,200   |      | 11000                 |                                       | 12                                   |                                      |                   | 222                             |  |       |       |     |      |
| DDD, 4,4'-                               | 72-54-8    | [0.003]<br>0.0005  | [X]<br>D                        | 0.24                         | I   |         |      | 0.000069              | C                                     | 44000                                |                                      |                   | 0.16                            | 5,6,7  | 350   | 0.02  |     |      |
| DDE, 4,4'-                               | 72-55-9    | [0.0003]<br>0.0005 | [X]<br>D                        | 0.34                         | I   |         |      | 0.000097              | C                                     | 87000                                |                                      |                   | 0.04                            | 5  | 348   | 0.02  |     |      |
| DDT, 4,4'-                               | 50-29-3    | 0.0005             | I                               | 0.34                         | I   |         |      | 0.000097              | I                                     | 240000                               |                                      |                   | 0.0055                          | 5,6,7  | 260   | 0.02  |     |      |
| DI(2-ETHYLHEXYL)ADIPATE                  | 103-23-1   | 0.6                | I                               | 0.0012                       | I   |         |      | 47,000,000            |                                       | 200                                  |                                      |                   | 5                               | X  | 214   | 4.50  |     |      |
| DIALATE                                  | 2303-16-4  |                    |                                 | 0.061                        | H   |         |      | 190                   |                                       | 40                                   | 2,4,6,8                              |                   | X                               | 328  | 1.39  |       |     |      |
| DIAMINOTOLUENE, 2,4-                     | 95-80-7    |                    |                                 | 4                            | C   |         |      | 0.0011                | C                                     | 36                                   |                                      |                   | 7470                            | 4  | 292   | 0.69  |     |      |
| DIAZINON                                 | 333-41-5   | 0.0007             | D                               |                              |   |         |      | 500                   |                                       | 50                                   | 2,4,6,8                              |                   | X                               | 306  |       |       |     |      |
| DIBENZO[A,H]ANTHRACENE                   | 53-70-3    |                    |                                 | [4.1] 1                      | [C]<br>R                                  |         |      | [0.0012]<br>0.0006    | [C]<br>R                              | 1800000                              |                                      |                   | 0.0006                          | 1,5,6  | 524   | 0.13  |     |      |
| DIBENZOFURAN                             | 132-64-9   | 0.001              | X                               |                              |   |         |      | 10233                 | X                                     | 4.48                                 | 1,6,7,9                              | 23885             | 31445                           |  | 287   | 7.23  |     |      |
| DIBROMO-3-CHLOROPROPANE, 1,2-            | 96-12-8    | 0.0002             | P                               | 0.8                          | P   | 0.0002  | I    | 0.006                 | P                                     | 140                                  | X                                    | 1000              | 4                               | 12946  | 14856 | X     | 196 | 0.69 |
| DIBROMOBENZENE, 1,4-                     | 106-37-6   | 0.01               | I                               |                              |   |         |      | 1,600                 |                                       | 20                                   |                                      |                   | 1                               |  | 220   |       |     |      |
| DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE) | 106-93-4   | 0.009              | I                               | 2                            | I   | 0.009   | I    | 0.0006                | I                                     | 54                                   | X                                    | 4150              | 1,2,3,5                         | 12972  | 14893 | X     | 131 | 2.11 |
| DIBROMOMETHANE                           | 74-95-3    | 0.01               | H                               |                              |   | 0.004   | X    |                       | X                                     | 110                                  |                                      | 11400             | 1                               | 12948  | 14858 | X     | 96  | 4.50 |
| DIBUTYL PHTHALATE, N-                    | 84-74-2    | 0.1                | I                               |                              |   |         |      | 1600                  |                                       | 400                                  | 1,2,3                                |                   | X                               | 340  | 11.00 |       |     |      |
| DICAMBA                                  | 1918-00-9  | 0.03               | I                               |                              |   |         |      | 0.27                  |                                       | 5600                                 | 4,5,6,8,10                           |                   |                                 | 329  |       |       |     |      |
| DICHLOROACETIC ACID                      | 76-43-6    | 0.004              | I                               | 0.05                         | I   |         |      | 8.1                   | X                                     | 1000000                              | 1                                    | 12994             | 14924                           | X  | 194   |       |     |      |
| DICHLORO-2-BUTENE, 1,4-                  | 764-41-0   |                    |                                 |                              |   | 0.0042  | P    | 180                   | X                                     | 850                                  | 9                                    | 12943             | 14851                           | X  | 156   |       |     |      |
| DICHLORO-2-BUTENE, TRANS-1,4-            | 110-57-6   |                    |                                 |                              |   | 0.0042  | P    | 215                   | X                                     | 850                                  | 9                                    | 12940             | 14847                           | X  | 155   |       |     |      |
| DICHLOROBENZENE, 1,2-                    | 95-50-1    | 0.09               | I                               |                              |   | 0.2     | H    | 350                   | X                                     | 147                                  | 1,4,5,6,7                            | 12946             | 14855                           | X  | 180   | 0.69  |     |      |
| DICHLOROBENZENE, 1,3-                    | 541-73-1   | 0.09               | M                               |                              |   |         |      | 360                   | X                                     | 106                                  | 1                                    | 12942             | 14849                           | X  | 173   | 0.69  |     |      |
| DICHLOROBENZENE, P-                      | 106-46-7   | 0.07               | D                               | 0.0054                       | C   | 0.8     | I    | 0.000011              | C                                     | 510                                  | X                                    | 82.9              | 1                               | 12943  | 14850 |       | 174 | 0.69 |
| DICHLOROBENZIDINE, 3,3'-                 | 91-94-1    |                    |                                 | 0.45                         | I   |         |      | 0.00034               | C                                     | 22000                                |                                      |                   | 3.11                            | 4,5,6  | 368   | 0.69  |     |      |

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S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

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|---|------------|----------------|---|-----------------------------|---|---------------------------|----------|---------------------------------------|---|--------|------|--------------------|------------------------------------|--------------------------|-----------------------------|----------------|---------------------------|---|
|   |            |                |   |                             |   |                           |          |                                       |   |        |      |                    |                                    |                          |                             |                |                           |   |
| DICHLORODIFLUOROMETHANE (FREON 12)      | 75-71-8    | 0.2            | I |                             |   | 0.1                       | X        |                                       |   | 360    | X    | 280                | 1                                  | 13115                    | 15041                       | X              | -30                       | 0.69  |
| DICHLOROETHANE, 1,1-                    | 75-34-3    | 0.2            | P | 0.0057                      | C | 0.5                       | H        | 0.0000016                             | C | 52     | X    | 5000               | 2                                  | 13051                    | 14998                       | X              | 57                        | 0.16  |
| DICHLOROETHANE, 1,2-                    | 107-06-2   | 0.006          | X | 0.091                       | I | 0.007                     | P        | 0.000026                              | I | 38     | X    | 8412               | 1,2,3,4                            | 13010                    | 14945                       | X              | 83                        | 0.07  |
| DICHLOROETHYLENE, 1,1-                  | 75-35-4    | 0.05           | I |                             |   | 0.2                       | I        |                                       |   | 65     | X    | 2500               | 1,4,5                              | 13145                    | 15119                       | X              | 32                        | 0.19  |
| DICHLOROETHYLENE, CIS-1,2-              | 156-59-2   | 0.002          | I |                             |   |                           |          |                                       |   | 49     | X    | 3500               | 1                                  | 13037                    | 14979                       | X              | 60                        | 0.01  |
| DICHLOROETHYLENE, TRANS-1,2-            | 156-60-5   | 0.02           | I |                             |   | <b>0.04</b>               | <b>P</b> |                                       |   | 47     | X    | 6300               | 1                                  | 13053                    | 15000                       | X              | 48                        | 0.01  |
| DICHLOROMETHANE (METHYLENE CHLORIDE)    | 75-09-2    | 0.006          | I | 0.002                       | I | 0.6                       | I        | 0.00000001                            | I | 16     | X    | 20000              | 1,2,3                              | 13071                    | 15023                       | X              | 40                        | 4.50  |
| DICHLOROPHENOL, 2,4-                    | 120-83-2   | 0.003          | I |                             |   |                           |          |                                       |   | 160    |      | 4500               | 1                                  |                          |                             |                | 210                       | 5.88  |
| DICHLOROPHENOXYACETIC ACID, 2,4-(2,4-D) | 94-75-7    | 0.01           | I |                             |   |                           |          |                                       |   | 59     |      | 677                | 4,5,6,7,10                         |                          |                             |                | 215                       | 1.39  |
| DICHLOROPROPANE, 1,2-                   | 78-87-5    | 0.04           | P | 0.037                       | P | 0.004                     | I        | 0.0037                                | P | 47     | X    | 2700               | 1,3,4                              | 13016                    | 14954                       | X              | 96                        | 0.10  |
| DICHLOROPROPENE, 1,3-                   | 542-75-6   | 0.03           | I | 0.1                         | I | 0.02                      | I        | 0.000004                              | I | 27     | X    | 2700               | 6                                  | 13038                    | 14981                       | X              | 108                       | 22.38   |
| DICHLOROPROPIONIC ACID, 2,2-(DALAPON)   | 75-99-0    | 0.03           | I |                             |   |                           |          |                                       |   | 62     | X    | 500000             | 5                                  | 12949                    | 14860                       | X              | 190                       | 2.11  |
| DICHLORVOS                              | 62-73-7    | 0.0005         | I | 0.29                        | I | 0.0005                    | I        | 0.000083                              | C | 50     |      | 10000              | 2,4,5                              |                          |                             | X              | 234                       |   |
| DICYCLOPENTADIENE                       | 77-73-6    | 0.008          | P |                             |   | 0.0003                    | X        |                                       |   | 810    | X    | 40                 | 5                                  | 12957                    | 14870                       |                | 167                       |   |
| DIELDRIN                                | 60-57-1    | 0.00005        | I | 16                          | I |                           |          | 0.0046                                | I | 11000  |      | 0.17               | 4,5,6                              |                          |                             |                | 385                       | 0.12  |
| DIETHANOLAMINE                          | 111-42-2   | 0.002          | P |                             |   | 0.0002                    | P        |                                       |   | 4      |      | 1000000            | 2,3,9                              |                          |                             | X              | 269                       |   |
| DIETHYL PHTHALATE                       | 84-66-2    | 0.8            | I |                             |   |                           |          |                                       |   | 81     |      | 1080               | 4,5,6                              |                          |                             | X              | 298                       | 2.25  |
| DIFLUBENZURON                           | 35367-38-5 | 0.02           | I |                             |   |                           |          |                                       |   | 1,000  |      | 0.2                | 2                                  |                          |                             |                | 201                       |   |
| DIISOPROPYL METHYLPHOSPHONATE           | 1445-75-6  | 0.08           | I |                             |   |                           |          |                                       |   | 10     | X    | 160000             | 9                                  | 12978                    | 14903                       | X              | 190                       |   |
| DIMETHOATE                              | 60-51-5    | 0.0022         | O |                             |   |                           |          |                                       |   | 110    |      | 25000              | 4                                  |                          |                             |                | 361                       | 2.26  |
| DIMETHOXYBENZIDINE, 3,3-                | 119-90-4   |                |   | 1.6                         | P |                           |          |                                       |   | 1,300  |      | 60                 | 9                                  |                          |                             |                | 331                       | 0.69  |
| DIMETHRIN                               | 70-38-2    | 0.3            | M |                             |   |                           |          |                                       |   | 27,000 |      | 0.036              | 13                                 |                          |                             |                | 353                       |   |
| DIMETHYLAMINOAZOBENZENE, P-             | 60-11-7    |                |   | 4.6                         | C |                           |          | 0.0013                                | C | 1000   |      | 13.6               | 7                                  |                          |                             |                | 335                       | 4.50  |
| DIMETHYLANILINE, N,N-                   | 121-69-7   | 0.002          | I | 0.027                       | P |                           |          |                                       |   | 180    | X    | 1200               | 5,6,7,9                            | 12944                    | 14852                       | X              | 192                       | 0.69  |
| DIMETHYLBENZIDINE, 3,3-                 | 119-93-7   |                |   | 11                          | P |                           |          |                                       |   | 22,000 |      | 1300               | 10                                 |                          |                             |                | 300                       | 18.07   |
| DIMETHYL METHYLPHOSPHONATE              | 756-79-6   | 0.06           | P | 0.0017                      | P |                           |          |                                       |   | 5      | X    | 1000000            | 14                                 | 12998                    | 14930                       | X              | 181                       |   |
| DIMETHYLPHENOL, 2,4-                    | 105-67-9   | 0.02           | I |                             |   |                           |          |                                       |   | 130    |      | 7869               | 1,4,6,7                            |                          |                             | X              | 211                       | 18.07   |
| DINITROBENZENE, 1,3-                    | 99-65-0    | 0.0001         | I |                             |   |                           |          |                                       |   | 150    |      | 523                | 3,5,6,7                            |                          |                             |                | 291                       | 0.69  |
| DINITROPHENOL, 2,4-                     | 51-28-5    | 0.002          | I |                             |   |                           |          |                                       |   | 0.79   |      | 5600               | 2,4,5,6,7                          |                          |                             |                | 332                       | 0.48  |
| DINITROTOLUENE, 2,4-                    | 121-14-2   | 0.002          | I | 0.31                        | C |                           |          | 0.000089                              | C | 51     |      | 270                | 4,5,6                              |                          |                             |                | 300                       | 0.69  |
| DINITROTOLUENE, 2,6- (2,6-DNT)          | 606-20-2   | 0.0003         | X | 1.5                         | P |                           |          |                                       |   | 74     |      | 200                | 6                                  |                          |                             |                | 300                       | 0.69  |
| DINOSEB                                 | 88-85-7    | 0.001          | I |                             |   |                           |          |                                       |   | 120    |      | 50                 | 5                                  |                          |                             |                | 223                       | 1.03  |
| DIOXANE, 1,4-                           | 123-91-1   | 0.03           | I | 0.1                         | I | 0.03                      | I        | 0.000005                              | I | 7.8    | X    | 1000000            | 5                                  | 12996                    | 14928                       | X              | 101                       | 0.69  |
| DIPHENAMID                              | 957-51-7   | 0.03           | I |                             |   |                           |          |                                       |   | 200    |      | 260                | 5                                  |                          |                             |                | 210                       |   |
| DIPHENYLAMINE                           | 122-39-4   | 0.1            | O |                             |   |                           |          |                                       |   | 190    |      | 300                | 3                                  |                          |                             |                | 302                       | 4.50  |

<sup>1</sup>Aqueous solubility references are keyed to the numbered list found at § 250.304(f) (relating to MSCs for groundwater). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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**R = EPA 1993 Relative Potency Factors**

S<sup>1</sup> Acenaphthene surrogate  
S<sup>2</sup> Trans-Crotonaldehyde surrogate  
S<sup>3</sup> Endosulfan surrogate  
S<sup>4</sup> Naphthalene surrogate  
S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate  
S<sup>7</sup> Total PCBs surrogate  
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S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate

**Appendix A**  
**Table 5—Physical and Toxicological Properties**  
**A. Organic Regulated Substances**

| Regulated Substance                        | CAS                                | RfDo<br>(mg/kg-d) | CSFo<br>(mg/kg-d) <sup>-1</sup> | RfCi<br>(mg/m <sup>3</sup> ) | IUR<br>(µg/m <sup>3</sup> ) <sup>-1</sup> | Koc        | VOC?               | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |       |       |     |      |
|--|------------------------------------|-------------------|---------------------------------|------------------------------|---|------------|--------------------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|-------|-------|-----|------|
| DIPHENYLHYDRAZINE, 1,2-DIQUAT              | 122-66-7<br>[85-00-7]<br>2764-72-9 | 0.0022            | I                               | 0.8                          | I   | 660<br>2.6 | X                  | 0.252<br>700000       | 6<br>5                                | 13375                             | 15446                                |                   | 309<br>355                      | 0.69   |       |       |     |      |
| DISULFOTON                                 | 298-04-4                           | 0.00004           | I                               |                              |   | 1000       |                    | 25                    | 4,5,6                                 |                                   |                                      | X                 | 332                             | 6.02   |       |       |     |      |
| DITHIANE, 1,4-                             | 505-29-3                           | 0.01              | I                               |                              |   | 22.7       | X                  | 3000                  | 15                                    | 12976                             | 14899                                |                   | 199                             |  |       |       |     |      |
| DIURON                                     | 330-54-1                           | 0.002             | I                               |                              |   | 300        |                    | 42                    | 2,4,5                                 |                                   |                                      |                   | 354                             |  |       |       |     |      |
| ENDOSULFAN                                 | 115-29-7                           | 0.006             | I                               |                              |   | 2,000      |                    | 0.48                  | 4                                     |                                   |                                      |                   | 401                             | 2.78   |       |       |     |      |
| ENDOSULFAN I (ALPHA)                       | 959-98-8                           | 0.006             | S <sup>3</sup>                  |                              |   | 2000       |                    | 0.5                   | 6                                     |                                   |                                      |                   | 401                             |  |       |       |     |      |
| ENDOSULFAN II (BETA)                       | 33213-65-9                         | 0.006             | S <sup>3</sup>                  |                              |   | 2300       |                    | 0.45                  | 6                                     |                                   |                                      |                   | 390                             |  |       |       |     |      |
| ENDOSULFAN SULFATE                         | 1031-07-8                          | 0.006             | S <sup>3</sup>                  |                              |   | 2300       |                    | 0.117                 | 7,9                                   |                                   |                                      |                   | 409                             |  |       |       |     |      |
| ENDOTHALL                                  | 145-73-3                           | 0.02              | I                               |                              |   | 120        |                    | 100000                | 2                                     |                                   |                                      |                   | 350                             |  |       |       |     |      |
| ENDRIN                                     | 72-20-8                            | 0.0003            | I                               |                              |   | 11000      |                    | 0.23                  | 4,6,7,9                               |                                   |                                      |                   | 245                             |  |       |       |     |      |
| EPICHLOROHYDRIN                            | 106-89-8                           | 0.006             | P                               | 0.0099                       | I   | 0.001      | I                  | 0.0000012             | I                                     | 35                                | X                                    | 65800             | 1,3,4                           | 12972  | 14893 | X     | 116 | 4.50 |
| ETHEPHON                                   | 16672-87-0                         | 0.005             | I                               |                              |   |            |                    | 2                     | 1240000                               | 12                                |                                      |                   | 201                             |  |       |       |     |      |
| ETHION                                     | 563-12-2                           | 0.0005            | I                               |                              |   | 8700       |                    | 0.85                  | 4,6,9,10                              |                                   |                                      | X                 | 415                             |  |       |       |     |      |
| ETHOXYETHANOL, 2- (EGEE)                   | 110-80-5                           | 0.09              | P                               |                              |   | [0.2] 0.04 | [I] P <sup>2</sup> | 12                    | X                                     | 1000000                           | 2                                    | 13100             | 15040                           | X  | 136   | 4.50  |     |      |
| ETHYL ACETATE                              | 141-78-6                           | [0.9] 0.7         | [I] P <sup>2</sup>              |                              |   | 0.07       | P                  | 59                    | X                                     | 80800                             | 1,2,3,4,5,6                          | 12963             | 14881                           | X  | 77    | 18.07 |     |      |
| ETHYL ACRYLATE                             | 140-88-5                           | 0.005             | P                               | 0.048                        | H   | 0.008      | P                  | 110                   | X                                     | 15000                             | 1,2,6                                | 12951             | 14863                           | X  | 100   | 18.07 |     |      |
| ETHYL BENZENE                              | 100-41-4                           | [0.1] 0.05        | [I] P <sup>2</sup>              | 0.011                        | C   | 1          | I                  | 0.0000025             | C                                     | 220                               | X                                    | 161               | 1,3,4                           | 13004  | 15000 | X     | 136 | 1.11 |
| ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)     | 759-94-4                           | 0.05              | O                               |                              |   |            |                    | 240                   | X                                     | 365                               | 2                                    | 13056             | 15014                           | X  | 127   |       |     |      |
| ETHYL ETHER                                | 60-29-7                            | 0.2               | I                               |                              |   |            |                    | 68                    | X                                     | 60400                             | 1                                    | 12982             | 14908                           | X  | 35    |       |     |      |
| ETHYL METHACRYLATE                         | 97-63-2                            | 0.09              | H                               |                              |   | 0.3        | P                  | 22                    | X                                     | 4635.5                            | 9,10                                 | 12991             | 14921                           | X  | 117   |       |     |      |
| ETHYLENE CHLORHYDRIN                       | 107-07-3                           | 0.02              | P                               |                              |   |            |                    | 1                     | X                                     | 1000000                           | 9                                    | 13006             | 14941                           | X  | 128   |       |     |      |
| ETHYLENE GLYCOL                            | 107-21-1                           | [2] 0.8           | [I] D <sup>2</sup>              |                              |   | 0.4        | C                  | 4.4                   | X                                     | 1000000                           | 2                                    | 13004             | 14938                           | X  | 198   | 10.54 |     |      |
| ETHYLENE THIOUREA (ETU)                    | 96-45-7                            | 0.00008           | I                               | 0.045                        | C   |            |                    | 0.000013              | C                                     | 0.23                              |                                      |                   |                                 |  | 347   | 4.50  |     |      |
| ETHYL P-NITROPHENYL PHENYLPHOSPHOROTHIOATE | 2104-64-5                          | 0.00001           | I                               |                              |   |            |                    | 1,200                 |                                       | 3.1                               | 4                                    |                   |                                 |  | 215   |       |     |      |
| FENAMIPHOS                                 | 22224-92-6                         | 0.00025           | I                               |                              |   |            |                    | 300                   |                                       | 329                               | 2                                    |                   |                                 |  | 390   |       |     |      |
| FENVALERATE (PYDRIN)                       | 51630-58-1                         | 0.025             | I                               |                              |   |            |                    | 4,400                 |                                       | 0.085                             | 5                                    |                   | X                               |  | 300   |       |     |      |
| FLUOMETURON                                | 2164-17-2                          | 0.013             | I                               |                              |   |            |                    | 68                    |                                       | 97.5                              | 2,5,6,8                              |                   |                                 |  | 318   |       |     |      |
| FLUORANTHENE                               | 206-44-0                           | 0.04              | I                               |                              |   |            |                    | 49000                 |                                       | 0.26                              | 1,5,6                                |                   |                                 |  | 375   | 0.29  |     |      |
| FLUORENE                                   | 86-73-7                            | 0.04              | I                               |                              |   |            |                    | 7900                  | X                                     | 1.9                               | 1                                    | 20155             | 25294                           |  | 298   | 2.11  |     |      |

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**Factors**

S<sup>1</sup> Acenaphthene surrogate

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S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

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| Regulated Substance  | CAS               | RfDo (mg/kg-d)                    |                                    | CSFo (mg/kg-d) <sup>-1</sup> |                        | RfCi (mg/m <sup>3</sup> ) |   | IUR (µg/m <sup>3</sup> ) <sup>-1</sup> |                        | Koc       | VOC?     | Aqueous Sol (mg/L) | Aqueous Sol Reference <sup>1</sup> | TF Vol from Surface Soil | TF Vol from Subsurface Soil | Organic Liquid | Boiling Point (degrees C) | Degradation Coefficient (K) (yr <sup>-1</sup> ) |
|--|-------------------|-----------------------------------|------------------------------------|------------------------------|------------------------|---------------------------|---|--|------------------------|-----------|----------|--------------------|------------------------------------|--------------------------|-----------------------------|----------------|---------------------------|---|
|  |                   |                                   |                                    |                              |                        |                           |   |  |                        |           |          |                    |                                    |                          |                             |                |                           |   |
| FLUOROTRICHLOROMETHANE (FREON 11)  | 75-69-4           | 0.3                               | I                                  |                              |                        | 0.7                       | H |  |                        | 130       | X        | 1090               | 1,4,5,6                            | 13107                    | 15060                       | X              | 24                        | 0.35  |
| FONOFOS  | 944-22-9          | 0.002                             | I                                  |                              |                        |                           |   |  |                        | 1100      |          | 13                 | 5,6,8                              |                          |                             | X              | 324                       |   |
| FORMALDEHYDE   | 50-00-0           | 0.2                               | I                                  | 0.021                        | C                      | 0.009                     | C | 0.000013                               | I                      | 3.6       | X        | 55000              | 1                                  | 13046                    | 14990                       | X              | -21                       | 18.07   |
| FORMIC ACID  | 64-18-6           | 0.9                               | P                                  |                              |                        | 0.0003                    | X |  |                        | 0.54      | X        | 1000000            | 2                                  | 12940                    | 14846                       | X              | 101                       | 18.07   |
| FOSETYL-AL   | 39148-24-8        | 2.5                               | O                                  |                              |                        |                           |   |  |                        | 310       |          | 120000             | 2                                  |                          |                             |                | 464                       |   |
| FURAN  | 110-00-9          | 0.001                             | I                                  |                              |                        |                           |   |  |                        | 130       | X        | 10000              | 1                                  | 13019                    | 14956                       | X              | 31                        | 2.25  |
| FURFURAL   | 98-01-1           | 0.003                             | I                                  | 0.0349                       | O                      | 0.05                      | H |  |                        | 6.3       | X        | 91000              | 1,2,3                              | 12998                    | 14930                       | X              | 162                       |   |
| GLYPHOSATE   | 1071-83-6         | 0.1                               | I                                  |                              |                        |                           |   |  |                        | 3500      |          | 12000              | 1,5,6                              |                          |                             |                | 417                       |   |
| HEPTACHLOR   | 76-44-8           | <b>[0.0005]</b><br><b>0.0001</b>  | <b>[I]</b><br><b>D<sup>2</sup></b> | 4.5                          | I                      |                           |   | 0.0013                                 | I                      | 6800      |          | 0.18               | 4,6,7                              |                          |                             |                | 310                       | 46.84   |
| HEPTACHLOR EPOXIDE   | 1024-57-3         | 0.000013                          | I                                  | 9.1                          | I                      |                           |   | 0.0026                                 | I                      | 21000     |          | 0.311              | 4,6,7,9                            |                          |                             |                | 341                       | 0.23  |
| HEXACHLOROBENZENE  | 118-74-1          | <b>[0.0008]</b><br><b>0.00001</b> | <b>[I]</b><br><b>P<sup>2</sup></b> | 1.6                          | I                      |                           |   | 0.00046                                | I                      | 3800      |          | 0.006              | 1,4,5                              |                          |                             |                | 319                       | 0.06  |
| HEXACHLOROBUTADIENE  | 87-68-3           | 0.001                             | P                                  | 0.078                        | I                      |                           |   | 0.000022                               | I                      | 4700      |          | 2.89               | 4,5,6,7                            |                          |                             | X              | 215                       | 0.69  |
| HEXACHLOROCYCLOPENTADIENE  | 77-47-4           | 0.006                             | I                                  |                              |                        | 0.0002                    | I |  |                        | 7200      |          | 1.8                | 5,6,7                              |                          |                             | X              | 239                       | 4.50  |
| HEXACHLOROETHANE   | 67-72-1           | 0.0007                            | I                                  | 0.04                         | I                      | 0.03                      | I | 0.000011                               | C                      | 2200      | X        | 50                 | 1                                  | 14825                    | 17421                       |                | 187                       | 0.69  |
| <b>HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID</b>                       | <b>13252-13-6</b> | <b>0.000003</b>                   | <b>M</b>                           |                              |                        |                           |   |  |                        | <b>12</b> | <b>X</b> | <b>751000</b>      | <b>23</b>                          | <b>12974</b>             | <b>14896</b>                | <b>X</b>       | <b>129</b>                |   |
| <b>HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID AMMONIUM SALT (GEN-X)</b> | <b>62037-80-3</b> | <b>0.000003</b>                   | <b>M</b>                           |                              |                        |                           |   |  |                        | <b>12</b> |          | <b>739000</b>      | <b>23</b>                          |                          |                             | <b>X</b>       | <b>108</b>                |   |
| HEXANE   | 110-54-3          | 0.06                              | H                                  |                              |                        | 0.7                       | I |  |                        | 3600      | X        | 9.5                | 1,5,6                              | 13105                    | 15056                       | X              | 69                        |   |
| HEXAZINONE   | 51235-04-2        | 0.033                             | I                                  |                              |                        |                           |   |  |                        | 41        |          | 330000             | 1,2                                |                          |                             |                | 408                       |   |
| HEXYTHIAZOX (SAVEY)  | 78587-05-0        | 0.025                             | I                                  |                              |                        |                           |   |  |                        | 6,500     |          | 0.5                | 2                                  |                          |                             |                | 539                       |   |
| HMX  | 2691-41-0         | 0.05                              | I                                  |                              |                        |                           |   |  |                        | 4         |          | 5                  | 16                                 |                          |                             |                | 436                       |   |
| HYDRAZINE/HYDRAZINE SULFATE  | 302-01-2          |                                   |                                    | 3                            | I                      | 0.00003                   | P | 0.0049                                 | I                      | 0.0053    | X        | 1000000            | 2                                  | 13026                    | 14966                       | X              | 114                       | 18.07   |
| HYDROQUINONE   | 123-31-9          | 0.04                              | P                                  | 0.06                         | P                      |                           |   |  |                        | 10        |          | 70000              | 2,3,5                              |                          |                             |                | 285                       | 18.07   |
| INDENO[1,2,3-CD]PYRENE   | 193-39-5          |                                   |                                    | <b>[1.2]</b><br><b>0.1</b>   | <b>[C]</b><br><b>R</b> |                           |   | <b>[0.00011]</b><br><b>0.00006</b>     | <b>[C]</b><br><b>R</b> | 31000000  |          | 0.062              | 5                                  |                          |                             |                | 536                       | 0.17  |
| IPRODIONE  | 36734-19-7        | 0.04                              | I                                  | 0.0439                       | O                      |                           |   |  |                        | 1,100     |          | 13                 | 2                                  |                          |                             |                | 545                       |   |
| ISOBUTYL ALCOHOL   | 78-83-1           | 0.3                               | I                                  |                              |                        |                           |   |  |                        | 60        | X        | 81000              | 1,2,3,4,5                          | 12954                    | 14866                       | X              | 108                       | 17.57   |
| ISOPHORONE   | 78-59-1           | 0.2                               | I                                  | 0.00095                      | I                      | 2                         | C |  |                        | 31        |          | 12000              | 2,4,5                              |                          |                             | X              | 215                       | 4.5   |
| ISOPROPYL METHYLPHOSPHONATE  | 1832-54-8         | 0.1                               | I                                  |                              |                        |                           |   |  |                        | 1.84      |          | 50000              | 13                                 |                          |                             | X              | 230                       |   |
| KEPONE   | 143-50-0          | 0.0003                            | I                                  | 10                           | I                      |                           |   | 0.0046                                 | C                      | 55000     |          | 7.6                | 4                                  |                          |                             |                | 350                       | 0.17  |
| MALATHION  | 121-75-5          | 0.02                              | I                                  |                              |                        |                           |   |  |                        | 1300      |          | 143                | 4                                  |                          |                             | X              | 351                       | 2.46  |
| MALEIC HYDRAZIDE   | 123-33-1          | 0.5                               | I                                  |                              |                        |                           |   |  |                        | 2.8       |          | 6000               | 4                                  |                          |                             |                | 260                       |   |
| MANEB  | 12427-38-2        | 0.005                             | I                                  | 0.0601                       | O                      |                           |   |  |                        | 1         |          | 23                 | 9,13                               |                          |                             |                | 351                       |   |
| MERPHOS OXIDE  | 78-48-8           | 0.0005                            | D                                  |                              |                        |                           |   |  |                        | 53,000    |          | 2.3                | 8,10,12                            |                          |                             | X              | 392                       |   |

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S<sup>9</sup> O-Toluidine surrogate

S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate

**Appendix A**  
**Table 5—Physical and Toxicological Properties**  
**A. Organic Regulated Substances**

| Regulated Substance                      | CAS        | RfDo<br>(mg/kg-d) | CSFo<br>(mg/kg-d) <sup>1</sup> | RfCi<br>(mg/m <sup>3</sup> ) | IUR<br>(µg/m <sup>3</sup> ) <sup>1</sup> | Koc      | VOC?       | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |       |      |      |      |
|--|------------|-------------------|--------------------------------|------------------------------|--|----------|------------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|-------|------|------|------|
| METHACRYLONITRILE                        | 126-98-7   | 0.0001            | I                              | 0.03                         | P  | 21       | X          | 25700                 | 1                                     | 12994                             | 14925                                | X                 | 90                              |  |       |      |      |      |
| METHAMIDOPHOS                            | 10265-92-6 | 0.00005           | I                              |                              |  | 5        |            | 2000000               | 5                                     |                                   |                                      |                   | 223                             |  |       |      |      |      |
| METHANOL                                 | 67-56-1    | 2                 | I                              | 20                           | I  | 2.8      | X          | 1000000               | 2                                     | 13025                             | 14964                                | X                 | 65                              | 36.14  |       |      |      |      |
| METHOMYL                                 | 16752-77-5 | 0.025             | I                              |                              |  | 20       |            | 58000                 | 2                                     |                                   |                                      |                   | 228                             |  |       |      |      |      |
| METHOXYCHLOR                             | 72-43-5    | 0.005             | I                              |                              |  | 63000    |            | 0.045                 | 4,5,6                                 |                                   |                                      |                   | 346                             | 0.69   |       |      |      |      |
| METHOXYETHANOL, 2-                       | 109-86-4   | 0.005             | P                              | [0.02]<br>0.007              | [I]<br>P <sup>2</sup>                    | 1        | X          | 1000000               | 2                                     | 13141                             | 15115                                | X                 | 124                             | 4.50   |       |      |      |      |
| METHYL ACETATE                           | 79-20-9    | 1                 | X                              |                              |  | 30       | X          | 243500                | 4,5,6                                 | 12982                             | 14908                                | X                 | 57                              |  |       |      |      |      |
| METHYL ACRYLATE                          | 96-33-3    | 0.03              | H                              | 0.02                         | P  | 55       | X          | 52000                 | 1,2,5                                 | 12971                             | 14892                                | X                 | 70                              | 18.07  |       |      |      |      |
| METHYL CHLORIDE                          | 74-87-3    |                   | 0.013                          | H                            | 0.09                                     | I        | 0.0000018  | H                     | 6                                     | X                                 | 6180                                 | 1,2,3,4           | 13103                           | 15038  | X     | -24  | 4.50 |      |
| METHYL ETHYL KETONE                      | 78-93-3    | 0.6               | I                              | 5                            | I  | 32       | X          | 275000                | 1,2,3,4,5                             | 12974                             | 14897                                | X                 | 80                              | 2.57   |       |      |      |      |
| METHYL HYDRAZINE                         | 60-34-4    | 0.001             | P                              | 0.00002                      | X  | 0.001    | X          | 1000000               | 2                                     | 13011                             | 14947                                | X                 | 88                              | 5.27   |       |      |      |      |
| METHYL ISOBUTYL KETONE                   | 108-10-1   | 0.08              | H                              | 3                            | I  | 17       | X          | 19550                 | 1,2,4,5                               | 12983                             | 14910                                | X                 | 117                             | 18.07  |       |      |      |      |
| METHYL ISOCYANATE                        | 624-83-9   |                   |                                | 0.001                        | C  | 10       | X          | 100000                | 7                                     | 13021                             | 14959                                | X                 | 40                              |  |       |      |      |      |
| METHYL N-BUTYL KETONE (2-<br>HEXANONE)   | 591-78-6   | 0.005             | I                              | 0.03                         | I  | 54       | X          | 17500                 | 1                                     | 12955                             | 14868                                | X                 | 128                             |  |       |      |      |      |
| METHYL METHACRYLATE                      | 80-62-6    | 1.4               | I                              | 0.7                          | I  | 10       | X          | 15600                 | 1                                     | 13001                             | 14934                                | X                 | 100                             | 4.50   |       |      |      |      |
| METHYL METHANESULFONATE                  | 66-27-3    |                   | 0.099                          | C                            |  | 0.000028 | C          | 5.2                   | 2                                     |                                   |                                      | X                 | 203                             |  |       |      |      |      |
| METHYL PARATHION                         | 298-00-0   | 0.00025           | I                              | 790                          |  | 25       |            | 4,5,6                 |                                       |                                   |                                      |                   | 348                             | 3.61   |       |      |      |      |
| METHYL STYRENE (MIXED ISOMERS)           | 25013-15-4 | 0.006             | H                              | 0.04                         | H  | 2,200    | X          | 89                    | 9                                     | 12945                             | 14853                                | X                 | 163                             |  |       |      |      |      |
| METHYL TERT-BUTYL ETHER (MTBE)           | 1634-04-4  |                   | 0.0018                         | C                            | 3  | I        | 0.00000026 | C                     | 12                                    | X                                 | 45000                                | 1,2,4,6           | 13014                           | 14950  | X     | 55   | 0.69 |      |
| METHYLCHLOROPHOXYACETIC<br>ACID (MCPA)   | 94-74-6    | 0.0005            | I                              |                              |  | 112      |            | 1000                  | 5,6,8,9                               |                                   |                                      |                   | 287                             | 1.39   |       |      |      |      |
| METHYLENE BIS(2-CHLOROANILINE),<br>4,4'- | 101-14-4   | 0.002             | P                              | 0.1                          | P  |          |            | 0.00043               | C                                     | 3,000                             |                                      |                   | 13.9                            | 10   |       |      | 379  |      |
| METHYLNAPHTHALENE, 2-                    | 91-57-6    | 0.004             | I                              | 0.003                        | S <sup>4</sup>                           | 16000    | X          | 25                    | 1                                     | 12955                             | 14870                                |                   | 241                             |  |       |      |      |      |
| METHYLSTYRENE, ALPHA                     | 98-83-9    | 0.07              | H                              |                              |  | 660      | X          | 560                   | 9                                     | 12942                             | 14850                                | X                 | 165                             |  |       |      |      |      |
| METOLACHLOR                              | 51218-45-2 | 0.15              | I                              |                              |  | 182      | X          | 530                   | 1,5                                   | 13035                             | 14985                                | X                 | 100                             |  |       |      |      |      |
| METRIBUZIN                               | 21087-64-9 | 0.025             | I                              |                              |  | 95       |            | 1200                  | 1,5                                   |                                   |                                      |                   | 367                             |  |       |      |      |      |
| MEVINPHOS                                | 7786-34-7  | 0.000025          | O                              |                              |  | 44       | X          | 600000                | 6                                     | 12947                             | 14856                                |                   | 106                             |  |       |      |      |      |
| MONOCHLOROACETIC ACID                    | 79-11-8    | 0.002             | H                              |                              |  | 0.24     | X          | 858000                | 17                                    | 13008                             | 14943                                |                   | 189                             |  |       |      |      |      |
| NAPHTHALENE                              | 91-20-3    | 0.02              | I                              | 0.12                         | C  | 0.003    | I          | 0.000034              | C                                     | 950                               | X                                    | 30                | 3                               | 13284  | 15323 |      | 218  | 0.98 |
| NAPHTHYLAMINE, 1-                        | 134-32-7   |                   |                                | 1.8                          | S <sup>5</sup>                           | 3200     | X          | 1690                  | 2                                     | 15517                             | 18386                                |                   | 301                             | 0.69   |       |      |      |      |
| NAPHTHYLAMINE, 2-                        | 91-59-8    |                   |                                | 1.8                          | C  | 87       |            | 6.4                   | 6                                     |                                   |                                      |                   | 306                             | 0.69   |       |      |      |      |
| NAPROPAMIDE                              | 15299-99-7 | 0.12              | O                              |                              |  | 880      |            | 70                    | 2                                     |                                   |                                      |                   | 399                             |  |       |      |      |      |
| NITROANILINE, O-                         | 88-74-4    | 0.01              | X                              | 0.00005                      | X  | 27       | X          | 1200                  | 6                                     | 12967                             | 14886                                |                   | 284                             |  |       |      |      |      |
| NITROANILINE, P-                         | 100-01-6   | 0.004             | P                              | 0.02                         | P  | 0.006    | P          | 800                   | 2                                     |                                   |                                      |                   | 332                             |  |       |      |      |      |
| NITROBENZENE                             | 98-95-3    | 0.002             | I                              | 0.009                        | I  | 0.00004  | I          | 130                   | X                                     | 2000                              | 2                                    | 12940             | 14847                           | X  | 211   | 0.64 |      |      |
| NITROGUANIDINE                           | 556-88-7   | 0.1               | I                              |                              |  | 0.13     |            | 4400                  | 9                                     |                                   |                                      |                   | 231                             |  |       |      |      |      |

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<sup>2</sup>Values recommended by USEPA Superfund program in May 2021 memo "Recommendations on the Use of Chronic or Subchronic Noncancer Values for Superfund Human Health Risk Assessments."

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S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

S<sup>3</sup> Endosulfan surrogate

S<sup>4</sup> Naphthalene surrogate

S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

S<sup>8</sup> Anthracene surrogate

S<sup>9</sup> O-Toluidine surrogate

S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate



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**A. Organic Regulated Substances**

| Regulated Substance                                | CAS        | RfDo<br>(mg/kg-d) | CSFo<br>(mg/kg-d) <sup>1</sup> | RfCi<br>(mg/m <sup>3</sup> ) | IUR<br>(µg/m <sup>3</sup> ) <sup>1</sup> | Koc                 | VOC?           | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol<br>from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |
|--|------------|-------------------|--------------------------------|------------------------------|--|---------------------|----------------|-----------------------|---------------------------------------|--------------------------------------|--------------------------------------|-------------------|---------------------------------|--|
| NITROPHENOL, 2-                                    | 88-75-5    | 0.008             | S <sup>6</sup>                 |                              |  | 37                  | X              | 2100                  | 1,2,3,4,5,6                           | 12966                                | 14884                                |                   | 215                             | 9.01   |
| NITROPHENOL, 4-                                    | 100-02-7   | 0.008             | M                              |                              |  | 230                 | X              | 16000                 | 2                                     | 12960                                | 14878                                |                   | 279                             | 25.81  |
| NITROPROPANE, 2-                                   | 79-46-9    |                   |                                | 0.02                         | I  | [0.0027]<br>0.00058 | [H]<br>P       | 20                    | X                                     | 16700                                | 1,3,4,5                              | X                 | 120                             | 0.69   |
| NITROSODIETHYLAMINE, N-                            | 55-18-5    |                   | 150                            | I                            |  | 0.043               | I              | 26                    | X                                     | 93000                                | 10                                   | X                 | 176                             | 0.69   |
| NITROSODIMETHYLAMINE, N-                           | 62-75-9    | 0.000008          | P                              | 51                           | I  | 0.00004             | X              | 8.5                   | X                                     | 1000000                              | 2                                    | X                 | 154                             | 0.69   |
| NITROSO-DI-N-BUTYLAMINE, N-                        | 924-16-3   |                   | 5.4                            | I                            |  | 0.0016              | I              | 450                   | X                                     | 1200                                 | 9, 10, 11                            | X                 | 235                             | 0.69   |
| NITROSODI-N-PROPYLAMINE, N-                        | 621-64-7   |                   | 7                              | I                            |  | 0.002               | C              | 11                    | X                                     | 9900                                 | 6                                    | X                 | 206                             | 0.69   |
| NITROSODIPHENYLAMINE, N-                           | 86-30-6    |                   | 0.0049                         | I                            |  | 0.0000026           | C              | 580                   | X                                     | 35                                   | 1                                    | X                 | 269                             | 3.72   |
| NITROSO-N-ETHYLUREA, N-                            | 759-73-9   |                   | 27                             | C                            |  | 0.0077              | C              | 2                     |                                       | 13000                                | 9                                    |                   | 223                             | 1734.48  |
| OCTYL PHTHALATE, DI-N-                             | 117-84-0   | 0.01              | P                              |                              |  | 980000000           |                | 3                     |                                       | 5                                    |                                      | X                 | 234                             | 0.69   |
| OXAMYL (VYDATE)                                    | 23135-22-0 | 0.025             | I                              |                              |  | 7.1                 |                | 280000                | 2                                     |                                      |                                      |                   | 334                             |  |
| PARAQUAT   | 1910-42-5  | 0.0045            | I                              |                              |  | 16200               |                | 660000                | 6,8                                   |                                      |                                      |                   | 352                             |  |
| PARATHION  | 56-38-2    | 0.00003           | O                              |                              |  | 2300                |                | 20                    | 2,4,5,6,7                             |                                      |                                      | X                 | 375                             |  |
| PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS) | 1336-36-3  |                   | 2                              | I                            |  | 0.0001              | I              | 78100                 | 0.0505                                | 10,13                                |                                      |                   | 360                             |  |
| PCB-1016 (AROCOLOR)                                | 12674-11-2 | 0.00007           | I                              |                              |  | 110000              |                | 0.25                  | 5                                     |                                      |                                      | X                 | 325                             |  |
| PCB-1221 (AROCOLOR)                                | 11104-28-2 |                   | 2                              | S <sup>7</sup>               |  | 0.0001              | S <sup>7</sup> | 1900                  | X                                     | 0.59                                 | 5                                    | X                 | 275                             |  |
| PCB-1232 (AROCOLOR)                                | 11141-16-5 |                   | 2                              | S <sup>7</sup>               |  | 0.0001              | S <sup>7</sup> | 1500                  |                                       | 1.45                                 | 7                                    | X                 | 290                             |  |
| PCB-1242 (AROCOLOR)                                | 53469-21-9 |                   | 2                              | S <sup>7</sup>               |  | 0.0001              | S <sup>7</sup> | 48000                 |                                       | 0.1                                  | 5                                    | X                 | 325                             |  |
| PCB-1248 (AROCOLOR)                                | 12672-29-6 |                   | 2                              | S <sup>7</sup>               |  | 0.0001              | S <sup>7</sup> | 190000                |                                       | 0.054                                | 7,9,11                               | X                 | 340                             |  |
| PCB-1254 (AROCOLOR)                                | 11097-69-1 | 0.00002           | I                              |                              |  | 810000              |                | 0.057                 | 5                                     |                                      |                                      | X                 | 365                             |  |
| PCB-1260 (AROCOLOR)                                | 11096-82-5 |                   | 2                              | S <sup>7</sup>               |  | 0.0001              | S <sup>7</sup> | 1800000               |                                       | 0.08                                 | 5                                    |                   | 385                             |  |
| PEBULATE   | 1114-71-2  | [0.05]<br>0.0007  | [H]<br>O                       |                              |  | 630                 |                | 92                    | 5                                     |                                      |                                      | X                 | 303                             |  |
| PENTACHLOROBENZENE                                 | 608-93-5   | 0.0008            | I                              |                              |  | 32000               |                | 0.74                  | 1,5,6,7                               |                                      |                                      |                   | 277                             | 0.37   |
| PENTACHLOROETHANE                                  | 76-01-7    |                   | 0.09                           | P                            |  | 1905                | X              | 480                   | 1,3                                   | 13120                                | 15102                                | X                 | 160                             |  |
| PENTACHLORONITROBENZENE                            | 82-68-8    | 0.003             | I                              | 0.26                         | H  | 7900                |                | 0.44                  | 4,6,8                                 |                                      |                                      |                   | 328                             | 0.36   |
| PENTACHLOROPHENOL                                  | 87-86-5    | 0.005             | I                              | 0.4                          | I  | 0.0000051           | C              | 20000                 | 14                                    | 1,2,4,5                              |                                      |                   | 310                             | 0.17   |
| PERFLUOROBUTANOIC ACID (PFBA)                      | 375-22-4   | 0.001             | I                              |                              |  | 1.88                |                | 49000                 | 25                                    |                                      |                                      |                   | 120                             |  |
| PERFLUOROBUTANE SULFONATE (PFBS)                   | 375-73-5   | 0.0003            | P                              |                              |  | 61.7                |                | 56600                 | 9                                     |                                      |                                      | X                 | [211] 152                       |  |
| PERFLUOROOCANE SULFONATE (PFOS)                    | 1763-23-1  | 0.00002           | M                              | 0.07                         | M  | 2.57                |                | 680                   | 19,20,21,22,23                        |                                      |                                      |                   | 258                             |  |
| PERFLUOROOCANOIC ACID (PFOA)                       | 335-67-1   | 0.00002           | M                              |                              |  | 2.06                |                | 9500                  | 24                                    |                                      |                                      |                   | 192                             |  |
| PHENACETIN   | 62-44-2    |                   | 0.0022                         | C                            |  | 0.00000063          | C              | 110                   | 763                                   | 2,3,9                                |                                      |                   | 341                             | 4.50   |
| PHENANTHRENE                                       | 85-01-8    | 0.3               | S <sup>8</sup>                 |                              |  | 38000               | X              | 1.1                   | 1,4,5                                 | 41808                                | 70721                                |                   | 341                             | 0.63   |
| PHENOL   | 108-95-2   | 0.3               | I                              |                              | 0.2                                      | C                   |                | 22                    | X                                     | 84300                                | 1,2,3,4                              |                   | 182                             | 36.14  |
| PHENYL MERCAPTAN                                   | 108-98-5   | 0.001             | P                              |                              |  | 562                 | X              | 653                   | 5,9                                   | 13039                                | 14989                                | X                 | 170                             |  |

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|---|-------------------|-----------------------------------|------------------------------------|---------------------------------|---|------------------------------|---|---|---|-----------|------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|
| PHENYLENEDIAMINE, M-                            | 108-45-2          | 0.006                             | I                                  |                                 |   |                              |   |   |   | 12        |      | 351000                | 3                                     |                                   |                                      |                   | 286                             | 4.50   |
| PHENYLPHENOL, 2-                                | 90-43-7           |                                   |                                    | 0.00194                         | H |                              |   |   |   | 5,700     |      | 700                   | 5                                     |                                   |                                      |                   | 280                             | 18.07  |
| PHORATE   | 298-02-2          | <b>[0.0002]</b><br><b>0.00017</b> | O                                  |                                 |   |                              |   |   |   | 810       |      | 50                    | 2                                     |                                   |                                      | X                 | 319                             |  |
| PHTHALIC ANHYDRIDE                              | 85-44-9           | 2                                 | I                                  |                                 |   | 0.02                         | C |   |   | 79        | X    | 6170                  | 2                                     | 13018                             | 14956                                |                   | 285                             | 13490.40   |
| PICLORAM  | 1918-02-1         | 0.07                              | I                                  |                                 |   |                              |   |   |   | 15        |      | 430                   | 2                                     |                                   |                                      |                   | 373                             |  |
| <b>POTASSIUM PERFLUOROBUTANE<br/>SULFONATE</b>  | <b>29420-49-3</b> | <b>0.0003</b>                     | <b>M</b>                           |                                 |   |                              |   |   |   | <b>62</b> |      | <b>46</b>             | <b>9</b>                              |                                   |                                      |                   | <b>447</b>                      |  |
| PROMETON  | 1610-18-0         | 0.015                             | I                                  |                                 |   |                              |   |   |   | 346       |      | 750                   | 2,5                                   |                                   |                                      |                   | 347                             |  |
| PRONAMIDE                                       | 23950-58-5        | 0.075                             | I                                  |                                 |   |                              |   |   |   | 200       |      | 15                    | 2                                     |                                   |                                      |                   | 321                             |  |
| PROPACHLOR                                      | 1918-16-7         | 0.013                             | I                                  |                                 |   |                              |   |   |   | 139       | X    | <b>613</b>            | <b>8</b>                              | 12952                             | 14865                                |                   | 110                             | 1.73   |
| PROPANIL  | 709-98-8          | 0.005                             | I                                  |                                 |   |                              |   |   |   | 160       |      | 225                   | 2                                     |                                   |                                      |                   | 355                             |  |
| PROPANOL, 2- (ISOPROPYL ALCOHOL)                | 67-63-0           | 2                                 | P                                  |                                 |   | 0.2                          | P |   |   | 25        | X    | 1000000               | 2                                     | 12981                             | 14906                                | X                 | 82                              |  |
| PROPAZINE                                       | 139-40-2          | 0.02                              | I                                  |                                 |   |                              |   |   |   | 155       |      | 8.6                   | 1,5                                   |                                   |                                      | X                 | 318                             |  |
| PROPHAM   | 122-42-9          | 0.02                              | I                                  |                                 |   |                              |   |   |   | 51        |      | 250                   | 5                                     |                                   |                                      |                   | 257                             |  |
| PROPYLBENZENE, N-                               | 103-65-1          | 0.1                               | X                                  |                                 |   | 1                            | X |   |   | 720       | X    | 52                    | 6                                     | 12971                             | 14891                                | X                 | 159                             |  |
| PROPYLENE OXIDE                                 | 75-56-9           | 0.001                             | O                                  | 0.24                            | I | 0.03                         | I | 0.0000037                                 | I | 25        | X    | 405000                | 1                                     | 13239                             | 15057                                | X                 | 34                              |  |
| PYRENE  | 129-00-0          | 0.03                              | I                                  |                                 |   |                              |   |   |   | 68000     |      | 0.132                 | 1                                     |                                   |                                      |                   | 393                             | 0.07   |
| PYRETHRUM                                       | 8003-34-7         | 0.044                             | O                                  |                                 |   |                              |   |   |   | 5.62      | X    | 0.35                  | 13                                    |                                   |                                      | X                 | 170                             |  |
| PYRIDINE  | 110-86-1          | 0.001                             | I                                  |                                 |   |                              |   |   |   | 0.0066    | X    | 1000000               | 2                                     | 13142                             | 15114                                | X                 | 115                             | 18.07  |
| QUINOLINE                                       | 91-22-5           |                                   |                                    | 3                               | I |                              |   |   |   | 1,300     |      | 60000                 | 1,3,5                                 |                                   |                                      | X                 | 238                             | 12.65  |
| QUIZALOFOP (ASSURE)                             | 76578-14-8        | 0.009                             | I                                  |                                 |   |                              |   |   |   | 580       |      | 0.3                   | 2                                     |                                   |                                      |                   | 220                             |  |
| RDX   | 121-82-4          | 0.004                             | I                                  | 0.08                            | I |                              |   |   |   | 70        |      | 59.9                  | 1,9                                   |                                   |                                      |                   | 353                             |  |
| RESORCINOL                                      | 108-46-3          | 2                                 | TE                                 |                                 |   |                              |   |   |   | 2         |      | 717000                |                                       |                                   |                                      |                   | 280                             |  |
| RONNEL  | 299-84-3          | 0.05                              | H                                  |                                 |   |                              |   |   |   | 580       |      | 40                    | 2                                     |                                   |                                      |                   | 349                             |  |
| SIMAZINE  | 122-34-9          | 0.005                             | I                                  | 0.12                            | H |                              |   |   |   | 110       |      | 5                     | 5                                     |                                   |                                      |                   | 225                             |  |
| STRYCHNINE                                      | 57-24-9           | 0.0003                            | I                                  |                                 |   |                              |   |   |   | 280       |      | 143                   | 5                                     |                                   |                                      |                   | 270                             | 4.50   |
| STYRENE   | 100-42-5          | 0.2                               | I                                  |                                 |   | 1                            | I |   |   | 910       | X    | 300                   | 5                                     | 12942                             | 14850                                | X                 | 145                             | 1.20   |
| TEBUTHIURON                                     | 34014-18-1        | 0.07                              | I                                  |                                 |   |                              |   |   |   | 620       |      | 2500                  | 2                                     |                                   |                                      |                   | 394                             |  |
| TERBACIL  | 5902-51-2         | 0.013                             | I                                  |                                 |   |                              |   |   |   | 53        |      | 710                   | 2                                     |                                   |                                      |                   | 396                             |  |
| TERBUFOS  | 13071-79-9        | 0.000025                          | H                                  |                                 |   |                              |   |   |   | 510       |      | 5                     | 6                                     |                                   |                                      | X                 | 332                             |  |
| TETRACHLOROBENZENE, 1,2,4,5-                    | 95-94-3           | <b>[0.0003]</b><br><b>0.00003</b> | <b>[I]</b><br><b>P<sup>2</sup></b> |                                 |   |                              |   |   |   | 1,800     |      | 0.583                 | 1,5,6,7                               |                                   |                                      |                   | 245                             | 0.69   |
| TETRACHLORODIBENZO-P-DIOXIN,<br>2,3,7,8- (TCDD) | 1746-01-6         | 0.000000007                       | I                                  | 130000                          | C | 0.00000004                   | C | 38  | C | 4300000   |      | 0.0000193             | 6                                     |                                   |                                      |                   | 412                             | 0.21   |
| TETRACHLOROETHANE, 1,1,1,2-                     | 630-20-6          | 0.03                              | I                                  | 0.026                           | I |                              |   | 0.0000074                                 | I | 980       | X    | 1100                  | 1                                     | 12990                             | 14921                                | X                 | 131                             | 3.79   |
| TETRACHLOROETHANE, 1,1,2,2-                     | 79-34-5           | 0.02                              | I                                  | 0.2                             | I |                              |   | 0.000058                                  | I | 79        | X    | 2860                  | 2                                     | 12957                             | 14871                                | X                 | 147                             | 0.56   |
| TETRACHLOROETHYLENE (PCE)                       | 127-18-4          | 0.006                             | I                                  | 0.0021                          | I | 0.04                         | I | 0.00000026                                | I | 300       | X    | 162                   | 1,2,3,4,5                             | 13017                             | 14955                                | X                 | 121                             | 0.03   |
| TETRACHLOROPHENOL, 2,3,4,6-                     | 58-90-2           | 0.03                              | I                                  |                                 |   |                              |   |   |   | 6200      |      | 183                   | 6                                     |                                   |                                      |                   | 288                             | 0.69   |

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Toxicity Value Appendix

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S<sup>1</sup> Acenaphthene surrogate

S<sup>2</sup> Trans-Crotonaldehyde surrogate

S<sup>3</sup> Endosulfan surrogate

S<sup>4</sup> Naphthalene surrogate

S<sup>5</sup> 2-Naphthylamine surrogate

S<sup>6</sup> 4-Nitrophenol surrogate

S<sup>7</sup> Total PCBs surrogate

S<sup>8</sup> Anthracene surrogate

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S<sup>10</sup> 1,2,4-Trichlorobenzene surrogate

**Appendix A**  
**Table 5—Physical and Toxicological Properties**  
**A. Organic Regulated Substances**

| Regulated Substance  | CAS        | RfDo<br>(mg/kg-d) | CSFo<br>(mg/kg-d) <sup>-1</sup> | RfCi<br>(mg/m <sup>3</sup> ) | IUR<br>(µg/m <sup>3</sup> ) <sup>-1</sup> | Koc    | VOC?            | Aqueous Sol<br>(mg/L) | Aqueous Sol<br>Reference <sup>1</sup> | TF<br>Vol from<br>Surface<br>Soil | TF<br>Vol from<br>Subsurface<br>Soil | Organic<br>Liquid | Boiling<br>Point<br>(degrees C) | Degradation<br>Coefficient<br>(K)<br>(yr <sup>-1</sup> ) |       |   |     |       |
|--|------------|-------------------|---------------------------------|------------------------------|---|--------|-----------------|-----------------------|---------------------------------------|-----------------------------------|--------------------------------------|-------------------|---------------------------------|--|-------|---|-----|-------|
| TETRAETHYL LEAD  | 78-00-2    | 0.0000001         | I                               |                              |   | 4900   |                 | 0.8                   | 5                                     |                                   |                                      | X                 | 202                             | 4.50   |       |   |     |       |
| TETRAETHYLDITHIOPYROPHOSPHATE                                | 3689-24-5  | 0.0005            | I                               |                              |   | 550    |                 | 25                    | 2                                     |                                   |                                      | X                 | 349                             |  |       |   |     |       |
| TETRAHYDROFURAN  | 109-99-9   | 0.9               | I                               | 0.0076                       | I   | 2      | I               | 0.00000194            | I                                     | 43                                | X                                    | 300000            | 1,6,7                           | 12970  | 14891 | X | 66  |       |
| THIOFANOX  | 39196-18-4 | 0.0003            | H                               |                              |   |        |                 | 0.022                 | 5200                                  | 9                                 |                                      |                   |                                 |  |       |   | 280 |       |
| THIRAM   | 137-26-8   | 0.015             | O                               |                              |   |        |                 | 1000                  | 30                                    | 4                                 |                                      |                   |                                 |  |       |   | 339 |       |
| TOLUENE  | 108-88-3   | 0.08              | I                               |                              |   | 5      | I               |                       | 130                                   | X                                 | 532.4                                | 1,2,3,4           | 13016                           | 14953  | X     |   | 111 | 9.01  |
| TOLUIDINE, M-  | 108-44-1   |                   |                                 | 0.016                        | S <sup>9</sup>                            |        |                 | 0.000051              | S                                     | 140                               |                                      | 15030             | 6                               |  |       | X | 203 |       |
| TOLUIDINE, O-  | 95-53-4    |                   |                                 | 0.016                        | P   |        |                 | 0.000051              | C                                     | 410                               |                                      | 15000             | 1,3,5                           |  |       | X | 200 | 18.07 |
| TOLUIDINE, P-  | 106-49-0   | 0.004             | X                               | 0.03                         | P   |        |                 |                       | 320                                   |                                   | 7410                                 | 1,2,3             |                                 |  |       |   | 200 |       |
| TOXAPHENE  | 8001-35-2  | 0.00009           | P                               | 1.1                          | I   |        |                 |                       | 1500                                  |                                   |                                      | 3                 | 2,4,5                           |  |       |   | 432 |       |
| TRIALATE   | 2303-17-5  | 0.025             | O                               | [0.717]<br>0.0717            | O   |        |                 |                       | 2,000                                 |                                   |                                      | 4                 | 5                               |  |       | X | 343 |       |
| TRIBROMOMETHANE (BROMOFORM)                                  | 75-25-2    | 0.02              | I                               | 0.0079                       | I   |        |                 | 0.0000011             | I                                     | 130                               | X                                    | 3050              | 1,2,3,4                         | 12942  | 14849 | X | 149 | 0.69  |
| TRICHLORO-1,2,2-TRIFLUOROETHANE,<br>1,1,2-                   | 76-13-1    | 30                | I                               |                              |   | 5      | P               |                       |                                       | 1,200                             | X                                    | 170               | 1                               | 13064  | 15014 | X | 48  | 0.35  |
| TRICHLOROACETIC ACID   | 76-03-9    | 0.02              | I                               | 0.07                         | I   |        |                 |                       | 20                                    | X                                 | 1200000                              | 2,3,5,9           | 13291                           | 15077  |       |   | 196 |       |
| TRICHLOROBENZENE, 1,2,4-                                     | 120-82-1   | 0.01              | I                               | 0.029                        | P   | 0.002  | P               |                       | 1500                                  | X                                 | 44.4                                 | 1,4,6,7           | 13217                           | 15233  | X     |   | 213 | 0.69  |
| TRICHLOROBENZENE, 1,3,5-                                     | 108-70-3   | 0.006             | M                               |                              |   | 0.002  | S <sup>10</sup> |                       | 3100                                  | X                                 | 5.8                                  | 5                 | 15677                           | 18611  |       |   | 208 |       |
| TRICHLOROETHANE, 1,1,1-                                      | 71-55-6    | 2                 | I                               |                              |   | 5      | I               |                       | 100                                   | X                                 | 1495                                 | 1,4,5,6           | 13116                           | 15082  | X     |   | 74  | 0.05  |
| TRICHLOROETHANE, 1,1,2-                                      | 79-00-5    | 0.004             | I                               | 0.057                        | I   | 0.0002 | X               | 0.000016              | I                                     | 76                                | X                                    | 4420              | 1                               | 12982  | 14909 | X | 114 | 0.03  |
| TRICHLOROETHYLENE (TCE)                                      | 79-01-6    | 0.0005            | I                               | 0.046                        | I   | 0.002  | I               | 0.000004              | I                                     | 93                                | X                                    | 1100              | 1                               | 13070  | 15022 | X | 87  | 0.02  |
| TRICHLOROPHENOL, 2,4,5-                                      | 95-95-4    | 0.1               | I                               |                              |   |        |                 |                       | 2400                                  |                                   | 1000                                 | 1,2,4             |                                 |  |       |   | 246 | 0.14  |
| TRICHLOROPHENOL, 2,4,6-                                      | 88-06-2    | 0.001             | P                               | 0.011                        | I   |        |                 | 0.0000031             | I                                     | 1100                              |                                      | 850               | 1,2,4,5                         |  |       |   | 246 | 0.14  |
| TRICHLOROPHENOXYACETIC ACID,<br>2,4,5- (2,4,5-T)             | 93-76-5    | 0.01              | I                               |                              |   |        |                 |                       | 43                                    |                                   | 278                                  | 2,4,5             |                                 |  |       |   | 279 | 1.39  |
| TRICHLOROPHENOXYPROPIONIC<br>ACID, 2,4,5- (2,4,5-TP)(SILVEX) | 93-72-1    | 0.008             | I                               |                              |   |        |                 |                       | 1700                                  |                                   | 140                                  | 2                 |                                 |  |       |   | 353 |       |
| TRICHLOROPROPANE, 1,1,2-                                     | 598-77-6   | 0.005             | I                               |                              |   |        |                 |                       | 24                                    | X                                 | 2700                                 | 14                | 13145                           | 15119  | X     |   | 117 |       |
| TRICHLOROPROPANE, 1,2,3-                                     | 96-18-4    | 0.004             | I                               | 30                           | I   | 0.0003 | I               |                       | 280                                   | X                                 | 1896                                 | 1,4,6             | 12974                           | 14896  | X     |   | 157 | 0.35  |
| TRICHLOROPROPENE, 1,2,3-                                     | 96-19-5    | 0.003             | X                               |                              |   | 0.0003 | P               |                       | 190                                   | X                                 | 2700                                 | 14                | 13047                           | 14992  | X     |   | 142 |       |
| TRIETHYLAMINE  | 121-44-8   |                   |                                 |                              |   | 0.007  | I               |                       | 51                                    | X                                 | 55000                                | 1,4               | 12951                           | 14862  | X     |   | 90  |       |
| TRIETHYLENE GLYCOL   | 112-27-6   | 2                 | P                               |                              |   |        |                 |                       | 6                                     |                                   | 1000000                              | 12                |                                 |  |       | X | 285 |       |
| TRIFLURALIN  | 1582-09-8  | 0.0075            | I                               | 0.0077                       | I   |        |                 |                       | 720                                   |                                   | 4                                    | 2,5,6,7           |                                 |  |       |   | 382 |       |
| TRIMETHYLBENZENE, 1,3,4-<br>(TRIMETHYLBENZENE, 1,2,4-)       | 95-63-6    | 0.01              | I                               |                              |   | 0.06   | I               |                       | 2,200                                 | X                                 | 56                                   | 1                 | 12978                           | 14904  | X     |   | 169 | 4.50  |
| TRIMETHYLBENZENE, 1,3,5-                                     | 108-67-8   | 0.01              | I                               |                              |   | 0.06   | I               |                       | 660                                   | X                                 | 48.9                                 | 1                 | 12961                           | 14876  | X     |   | 165 |       |
| TRINITROGLYCEROL<br>(NITROGLYCERIN)                          | 55-63-0    | 0.0001            | P                               | 0.017                        | P   |        |                 |                       | 116                                   | X                                 | 1800                                 | 2,3,5             | 12941                           | 14848  | X     |   | 190 | 18.07 |
| TRINITROTOLUENE, 2,4,6-                                      | 118-96-7   | 0.0005            | I                               | 0.03                         | I   |        |                 |                       | 1                                     |                                   | 100                                  | 2                 |                                 |  |       |   | 240 |       |

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|-----------------------------|------------|-------------------|---|---------------------------------|---|------------------------------|-----------------------|---|----------|-----|------|-----------------------|---------------------------------------|--------------------------------------|--------------------------------------|-------------------|---------------------------------|--|
|                             |            | 1                 | H |                                 |   |                              |                       |   |          |     |      |                       |                                       |                                      |                                      |                   |                                 |  |
| VINYL ACETATE               | 108-05-4   | 1                 | H |                                 |   | 0.2                          | I                     |   |          | 2.8 | X    | 20000                 | 1                                     | 13017                                | 14955                                | X                 | 73                              |  |
| VINYL BROMIDE (BROMOETHENE) | 593-60-2   |                   |   |                                 |   | 0.003                        | I                     | [0.000032]<br>0.000015                    | [H]<br>P | 150 | X    | 4180                  | 12                                    | 13086                                | 15043                                | X                 | 16                              | 0.09   |
| VINYL CHLORIDE              | 75-01-4    | 0.003             | I | 1.5                             | I | [0.1] 0.08                   | [I]<br>P <sup>2</sup> | 0.0000088                                 | I        | 10  | X    | 2700                  | 1                                     | 13109                                | 15040                                | X                 | -13                             | 0.09   |
| WARFARIN                    | 81-81-2    | 0.0003            | I |                                 |   |                              |                       |   |          | 910 |      | 17                    | 4                                     |                                      |                                      |                   | 356                             | 4.50   |
| XYLENES (TOTAL)             | 1330-20-7  | 0.2               | I |                                 |   | 0.1                          | I                     |   |          | 350 | X    | 175                   | 13                                    | 12982                                | 14909                                | X                 | 140                             | 0.69   |
| ZINEB                       | 12122-67-7 | 0.05              | I |                                 |   |                              |                       |   |          | 19  |      | 10                    | 4                                     |                                      |                                      |                   | 474                             |  |

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