

## APPENDIX B: DATABASE

**Table 4: Fish Acute**

| A = 1.0 |    | A = 0.1 |    | A = 0.01 |    | A = 0.001 |     |
|---------|----|---------|----|----------|----|-----------|-----|
| X       | Y  | X       | Y  | X        | Y  | X         | Y   |
| 0       | 0  | 0       | -1 | 0        | -2 | 0         | -3  |
| -1      | -1 | -1      | -2 | -1       | -3 | -1        | -4  |
| -2      | -2 | -2      | -3 | -2       | -4 | -2        | -5  |
| -3      | -3 | -3      | -4 | -3       | -5 | -3        | -6  |
| -4      | -4 | -4      | -5 | -4       | -6 | -4        | -7  |
| -5      | -5 | -5      | -6 | -5       | -7 | -5        | -8  |
| -6      | -6 | -6      | -7 | -6       | -8 | -6        | -9  |
| -7      | -7 | -7      | -8 | -7       | -9 | -7        | -10 |

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|----------------|----------|------------|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| 1-Hexanol      | 111-27-3 | OCCCCCC    | 0                       | Class 1          |                        | -1.239                     | -3.023                   |
| 1-Heptanol     | 111-70-6 | OCCCCCCC   | 0                       | Class 1          |                        | -1.947                     | -3.485                   |
| 1-Octanol      | 111-87-5 | OCCCCCCCC  | 0                       | Class 1          |                        | -2.373                     | -4.001                   |
| 1-Nonanol      | 143-08   | OCCCCCCCCC | 0                       | Class 1          |                        | -3.052                     | -4.419                   |
| 1-Decanol      | 112-30-1 | OCCCCCCCCC | 0                       | Class 1          |                        | -3.603                     | -4.838                   |

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|-------------------------|------------|------------------|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| 1-Undecanol             | 112-42-5   | OCCCCCCCCCCC     | 0                       | Class 1          |                        | -4.333                     | -5.236                   |
| 1-Dodecanol             | 112-53-8   | OCCCCCCCCCCCC    | 0                       | Class 1          |                        | -4.985                     | -5.270                   |
| Isotridecanol           | 27458-92-0 | OCCCCCCCCCCC(C)C | 0                       | Class 1          |                        | -5.302                     | -5.561                   |
| Cyclohexanol            | 108-93-0   | OC(CCCC1)C1      | 0                       | Class 1          |                        | -0.444                     | -2.153                   |
| Benzyl alcohol          | 100-51-6   | OCC(cccc1)c1     | 0                       | Class 1          |                        | -0.432                     | -2.371                   |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | 0                       | Class 1          |                        | -0.324                     | -2.118                   |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | 0                       | Class 1          |                        | -0.324                     | -2.186                   |
| Dichloromethane         | 75-09-2    | ClCCl            | 0                       | Class 1          |                        | -0.815                     | -2.643                   |
| Dichloromethane         | 75-09-2    | ClCCl            | 0                       | Class 1          |                        | -0.815                     | -2.933                   |
| Dichloromethane         | 75-09-2    | ClCCl            | 0                       | Class 1          |                        | -0.815                     | -2.411                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -3.817                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -3.064                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -3.369                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -3.202                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -3.227                   |
| Chloroform              | 67-66-3    | ClC(Cl)Cl        | 0                       | Class 1          |                        | -1.137                     | -2.994                   |

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| Carbon tetrachloride   | 56-23-5  | <chem>C1C(Cl)(Cl)Cl</chem>       | 0                       | Class 1          |                        | -2.260                     | -3.801                   |
| Trichloroethylene      | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>         | 0                       | Class 1          |                        | -2.078                     | -3.915                   |
| Trichloroethylene      | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>         | 0                       | Class 1          |                        | -2.078                     | -3.667                   |
| Trichloroethylene      | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>         | 0                       | Class 1          |                        | -2.078                     | -3.509                   |
| Trichloroethylene      | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>         | 0                       | Class 1          |                        | -2.078                     | -3.474                   |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>   | 0                       | Class 1          |                        | -3.044                     | -4.521                   |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>   | 0                       | Class 1          |                        | -3.044                     | -4.521                   |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>   | 0                       | Class 1          |                        | -3.044                     | -4.093                   |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>   | 0                       | Class 1          |                        | -3.044                     | -3.843                   |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>   | 0                       | Class 1          |                        | -3.044                     | -4.296                   |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>              | 0                       | Class 1          |                        | -1.098                     | -2.862                   |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>              | 0                       | Class 1          |                        | -1.098                     | -2.935                   |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>              | 0                       | Class 1          |                        | -1.098                     | -2.924                   |
| 1,2,4-Trichlorobenzene | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>  | 0                       | Class 1          |                        | -3.681                     | -4.879                   |
| 1,3-Dichlorobenzene    | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.070                     | -4.281                   |
| 1,3-Dichlorobenzene    | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.070                     | -4.468                   |

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|---------------------------|----------|----------------------------------|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| 1,3-Dichlorobenzene       | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem> | O                       | Class 1          |                        | -3.070                     | -4.207                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -5.118                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.544                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.099                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.544                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.419                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.845                   |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>   | O                       | Class 1          |                        | -2.969                     | -4.845                   |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>    | O                       | Class 1          |                        | -2.975                     | -4.985                   |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>    | O                       | Class 1          |                        | -2.975                     | -4.969                   |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>    | O                       | Class 1          |                        | -2.975                     | -4.960                   |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>    | O                       | Class 1          |                        | -2.975                     | -4.977                   |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>    | O                       | Class 1          |                        | -2.975                     | -4.451                   |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>      | O                       | Class 1          |                        | -1.763                     | -3.917                   |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>      | O                       | Class 1          |                        | -1.763                     | -3.915                   |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>      | O                       | Class 1          |                        | -1.763                     | -3.958                   |

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| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | 0                       | Class 1          |                        | -1.763                     | -3.797                   |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -5.715                   |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -4.754                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.403                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -4.080                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.448                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.513                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.377                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.607                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.499                   |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.666                   |
| 1,1,2-Trichloroethane     | 79-00-5  | <chem>ClCC(Cl)Cl</chem>              | 0                       | Class 1          |                        | -1.482                     | -3.523                   |
| Chlorobenzene             | 108-90-7 | <chem>c1ccc(cc1)Cl</chem>            | 0                       | Class 1          |                        | -2.351                     | -4.398                   |
| n-Pentane                 | 109-66-0 | <chem>CCCCC</chem>                   | 0                       | Class 1          |                        | -3.273                     | -4.229                   |
| Cyclohexane               | 110-82-7 | <chem>C(CCCC1)C1</chem>              | 0                       | Class 1          |                        | -3.209                     | -4.269                   |
| Hex-1-ene                 | 592-41-6 | <chem>CCCC=C</chem>                  | 0                       | Class 1          |                        | -3.253                     | -4.177                   |

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|--------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| Dimethyl phthalate | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>       |                         | Class 5          | Class 1                | -1.665                     | -3.589                   |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -4.122                   |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -4.116                   |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -4.268                   |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -3.884                   |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -4.124                   |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem> | O                       | Class 5          | Class 1                | -4.388                     | -5.257                   |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem> | O                       | Class 5          | Class 1                | -4.388                     | -5.481                   |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem> | O                       | Class 5          | Class 1                | -4.388                     | -5.240                   |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem> | O                       | Class 5          | Class 1                | -4.388                     | -5.763                   |
| Nitrobenzene       | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>              | O                       | Class 2          | Class 1                | -1.811                     | -3.126                   |
| Nitrobenzene       | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>              | O                       | Class 2          | Class 1                | -1.811                     | -3.319                   |
| Nitrobenzene       | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>              | O                       | Class 2          | Class 1                | -1.812                     | -3.015                   |
| 2-Nitrotoluene     | 88-72-2  | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>           | O                       | Class 2          | Class 1                | -2.497                     | -3.659                   |
| 3-Nitrotoluene     | 99-08-1  | <chem>N(=O)(=O)c(cccc1C)c1</chem>             |                         | Class 2          | Class 1                | -2.515                     | -3.630                   |
| 3-Nitrotoluene     | 99-08-1  | <chem>N(=O)(=O)c(cccc1C)c1</chem>             |                         | Class 2          | Class 1                | -2.515                     | -4.268                   |

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| 4-Nitrotoluene                                  | 99-99-0   | <chem>N(=O)(=O)c(ccc(c1)C)c1</chem>      | O                       | Class 2          | Class 1                | -2.406                     | -3.535                   |
| 2-Ethoxyethyl acetate                           | 111-15-9  | <chem>O=C(OCCOCC)C</chem>                | N                       | Class 2          |                        | 0.239                      | -3.519                   |
| 2-Ethoxyethyl acetate                           | 111-15-9  | <chem>O=C(OCCOCC)C</chem>                | N                       | Class 2          |                        | 0.239                      | -2.827                   |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -4.021                   |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -4.084                   |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -3.791                   |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          |                        | -1.565                     | -4.792                   |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          |                        | -1.565                     | -4.355                   |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          |                        | -1.565                     | -4.677                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.922                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.665                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.365                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.086                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.149                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.096                   |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.303                   |

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| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.547                   |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.329                   |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.280                   |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.829                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.144                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.135                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -3.963                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -3.969                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.290                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.109                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.017                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -3.804                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.045                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -3.948                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.310                   |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.290                   |



| Substance name          | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|-------------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| 2-Chlorophenol          | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>                  | N                       | Class 2          |                        | -0.654                     | -4.265                   |
| 3-Chlorophenol          | 108-43-0 | <chem>ClC1=CC(O)=CC=C1</chem>                  | N                       | Class 2          |                        | -0.610                     | -4.508                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.529                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.180                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.529                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.828                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.361                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.410                   |
| 4-Chlorophenol          | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -4.377                   |
| Bisphenol-A             | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -4.696                   |
| Bisphenol-A             | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -4.385                   |
| Bisphenol-A             | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -4.317                   |
| Aniline                 | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -3.944                   |
| Aniline                 | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -3.410                   |
| Phenol                  | 108-95-2 | <chem>Oc(cccc1)c1</chem>                       | N                       | Class 2          |                        | 0.026                      | -4.024                   |
| 4,4'-Methylenedianiline | 101-77-9 | <chem>Nc(ccc(c1)Cc(ccc(N)c2)c2)c1</chem>       | N                       | Class 2          |                        | -1.650                     | -3.983                   |

| Substance name       | CAS #    | SMILES                         | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|----------------------|----------|--------------------------------|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| Butyraldehyde        | 123-72-8 | O=CCCC                         | N                       | Class 3          |                        | -0.159                     | -3.446                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -6.416                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -6.462                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -6.036                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -6.462                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -5.906                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -5.911                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -5.416                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     | -5.763                   |
| Hexachlorobutadiene  | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl | N                       | Class 3          |                        | -5.010                     |                          |
| 4-Chlorobenzaldehyde | 104-88-1 | ClC1=CC=C(C=O)C=C1             | N                       | Class 3          |                        | -1.966                     | -4.805                   |
| Benzaldehyde         | 100-52-7 | O=Cc1ccccc1                    | N                       | Class 3          |                        | -1.184                     | -3.977                   |
| Acetaldehyde         | 75-07-0  | O=CC                           | N                       | Class 3          |                        | 1.744                      | -2.920                   |
| Acrolein             | 107-02-8 | O=CC=C                         | N                       | Class 3          |                        | 0.570                      | -6.458                   |
| Hexenal              | 66-25-1  | O=CCCCCC                       | N                       | Class 3          |                        | -1.223                     | -3.855                   |
| Heptanal             | 111-71-7 | O=CCCCCCC                      | N                       | Class 3          |                        | -1.961                     | -3.978                   |

| Substance name     | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|--------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| Salicylaldehyde    | 90-02-8  | <chem>O=Cc(c(O)ccc1)c1</chem>                            | N                       | Class 3          |                        | -0.856                     | -4.883                   |
| Pentachlorobenzene | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>                 | N                       | Class 4          |                        | -4.976                     | -6.001                   |
| Pentachlorobenzene | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>                 | N                       | Class 4          |                        | -4.976                     | -6.268                   |
| Endosulfan         | 115-29-7 | <chem>ClC2=C(Cl)C3(Cl)C1COS(=O)OCC1C2(Cl)C3(Cl)Cl</chem> | N                       | Class 4          |                        | -5.659                     | -8.530                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.780                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -6.773                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.458                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.572                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.703                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.210                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.174                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.342                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     |                          |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -8.095                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.996                   |
| Heptachlor         | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem>  | N                       | Class 4          |                        | -5.619                     | -7.572                   |

| Substance name | CAS #   | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|----------------|---------|---|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.233                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -7.509                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -7.032                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -8.163                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.851                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.708                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.318                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.589                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -6.631                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -7.260                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -4.260                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -7.121                   |
| Lindane        | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -8.233                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |

| Substance name | CAS #   | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|----------------|---------|---|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.948                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.118                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.896                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.868                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.916                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.294                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.374                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.948                   |

| Substance name | CAS #   | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|----------------|---------|---|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.169                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.072                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.937                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.374                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.314                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -9.294                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.403                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.050                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.998                   |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     |                          |
| DDT            | 50-29-3 | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.456                   |

| Substance name         | CAS #     | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) |
|------------------------|-----------|--|-------------------------|------------------|------------------------|----------------------------|--------------------------|
| DDT                    | 50-29-3   | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem>    | N                       | Class 4          |                        | -6.983                     | -8.429                   |
| DDT                    | 50-29-3   | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem>    | N                       | Class 4          |                        | -6.983                     | -8.087                   |
| Pentachlorobenzene     | 608-93-5  | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>                     | N                       | Class 4          |                        | -4.976                     | -6.001                   |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>         |                         | Class 5          |                        | -5.063                     | -5.319                   |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>         |                         | Class 5          |                        | -5.063                     | -5.581                   |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>         |                         | Class 5          |                        | -5.063                     | -5.662                   |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>         |                         | Class 5          |                        | -5.063                     | -5.787                   |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>         |                         | Class 5          |                        | -5.063                     | -5.754                   |
| Methyl acetate         | 79-20-9   | <chem>O=C(OC)C</chem>  | N                       | Class 5          |                        | 0.516                      | -2.393                   |
| Trifluralin            | 1582-09-8 | <chem>CCCN(CCC)c1c(cc(cc1N(=O)(=O))C(F)(F)F)N(=O)(=O)</chem> | N                       | Class 5          |                        | -4.691                     | -6.571                   |

**Table 5: Invertebrate Acute**

|    | <b>A = 1.0</b> |    | <b>A = 0.1</b> |    | <b>A = 0.01</b> |    | <b>A = 0.001</b> |  |
|----|----------------|----|----------------|----|-----------------|----|------------------|--|
|    | Y              | X  | Y              | X  | Y               | X  | Y                |  |
| 1  | Y              | X  | Y              | X  | Y               | X  | Y                |  |
| 0  | 0              | 0  | -1             | 0  | -2              | 0  | -3               |  |
| -1 | -1             | -1 | -2             | -1 | -3              | -1 | -4               |  |
| -2 | -2             | -2 | -3             | -2 | -4              | -2 | -5               |  |
| -3 | -3             | -3 | -4             | -3 | -5              | -3 | -6               |  |
| -4 | -4             | -4 | -5             | -4 | -6              | -4 | -7               |  |
| -5 | -5             | -5 | -6             | -5 | -7              | -5 | -8               |  |
| -6 | -6             | -6 | -7             | -6 | -8              | -6 | -9               |  |
| -7 | -7             | -7 | -8             | -7 | -9              | -7 | -10              |  |

| <b>Substance name</b>   | <b>CAS #</b> | <b>SMILES</b>    | <b>WoE Narc/non-narc (O/N)</b> | <b>Verhaar Modified</b> | <b>Updated in this report</b> | <b>log S<sub>L</sub> (mol/L)</b> | <b>Invert log L(E)C50 (mol/L)</b> |
|-------------------------|--------------|------------------|--------------------------------|-------------------------|-------------------------------|----------------------------------|-----------------------------------|
| 1-Decanol               | 112-30-1     | OCCCCCCCCC       | O                              | Class 1                 |                               | -3.603                           | -4.737                            |
| 1-Dodecanol             | 112-53-8     | OCCCCCCCCCCC     | O                              | Class 1                 |                               | -4.985                           | -5.384                            |
| Isotridecanol           | 27458-92-0   | OCCCCCCCCCCC(C)C | O                              | Class 1                 |                               | -5.302                           | -5.710                            |
| Cyclohexanol            | 108-93-0     | OC(CCCC1)C1      | O                              | Class 1                 |                               | -0.444                           | -3.770                            |
| Benzyl alcohol          | 100-51-6     | OCc(cccc1)c1     | O                              | Class 1                 |                               | -0.432                           | -2.672                            |
| tert-Butyl methyl ether | 1634-04-4    | O(C(C)(C)C)C     | O                              | Class 1                 |                               | -0.324                           | -2.271                            |



| Substance name       | CAS #      | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|----------------------|------------|--|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| PBDE                 | 32534-81-9 | <chem>Brc1cc(c(cc1Oc2c(cc(cc2)Br)Br)Br)Br</chem> | 0                       | Class 1          |                        |                            |                            |
| Dichloromethane      | 75-09-2    | <chem>ClCCl</chem>                               | 0                       | Class 1          |                        | -0.815                     | -3.498                     |
| Dichloromethane      | 75-09-2    | <chem>ClCCl</chem>                               | 0                       | Class 1          |                        | -0.815                     | -2.892                     |
| Dichloromethane      | 75-09-2    | <chem>ClCCl</chem>                               | 0                       | Class 1          |                        | -0.815                     | -2.587                     |
| Chloroform           | 67-66-3    | <chem>ClC(Cl)Cl</chem>                           | 0                       | Class 1          |                        | -1.137                     | -2.894                     |
| Chloroform           | 67-66-3    | <chem>ClC(Cl)Cl</chem>                           | 0                       | Class 1          |                        | -1.137                     | -3.179                     |
| Chloroform           | 67-66-3    | <chem>ClC(Cl)Cl</chem>                           | 0                       | Class 1          |                        | -1.137                     | -3.614                     |
| Carbon tetrachloride | 56-23-5    | <chem>ClC(Cl)(Cl)Cl</chem>                       | 0                       | Class 1          |                        | -2.260                     | -3.643                     |
| Trichloroethylene    | 79-01-6    | <chem>ClC=C(Cl)Cl</chem>                         | 0                       | Class 1          |                        | -2.078                     | -3.973                     |
| Trichloroethylene    | 79-01-6    | <chem>ClC=C(Cl)Cl</chem>                         | 0                       | Class 1          |                        | -2.078                     | -3.739                     |
| Tetrachlorethylene   | 127-18-4   | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>                   | 0                       | Class 1          |                        | -3.044                     | -4.290                     |
| Tetrachlorethylene   | 127-18-4   | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>                   | 0                       | Class 1          |                        | -3.044                     | -4.375                     |
| Tetrachlorethylene   | 127-18-4   | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>                   | 0                       | Class 1          |                        | -3.044                     | -3.877                     |
| 1,2-Dichloroethane   | 107-06-2   | <chem>ClCCCl</chem>                              | 0                       | Class 1          |                        | -1.098                     | -2.791                     |
| 1,2-Dichloroethane   | 107-06-2   | <chem>ClCCCl</chem>                              | 0                       | Class 1          |                        | -1.098                     | -2.740                     |
| 1,2-Dichloroethane   | 107-06-2   | <chem>ClCCCl</chem>                              | 0                       | Class 1          |                        | -1.098                     | -2.485                     |

| Substance name            | CAS #    | SMILES                               | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|---------------------------|----------|--------------------------------------|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| 1,2,4-Trichlorobenzene    | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>      | 0                       | Class 1          |                        | -3.681                     | -5.113                     |
| 1,3-Dichlorobenzene       | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>     | 0                       | Class 1          |                        | -3.070                     | -5.088                     |
| 1,3-Dichlorobenzene       | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>     | 0                       | Class 1          |                        | -3.070                     | -4.937                     |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | 0                       | Class 1          |                        | -2.969                     | -5.322                     |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | 0                       | Class 1          |                        | -2.969                     | -4.126                     |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | 0                       | Class 1          |                        | -2.975                     | -5.348                     |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | 0                       | Class 1          |                        | -1.763                     | -3.863                     |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | 0                       | Class 1          |                        | -1.763                     | -3.827                     |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | 0                       | Class 1          |                        | -1.763                     | -4.256                     |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -5.596                     |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -5.003                     |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -4.827                     |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | 0                       | Class 1          |                        | -3.487                     | -5.083                     |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -3.365                     |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | 0                       | Class 1          |                        | -2.028                     | -4.250                     |
| 1,1,2-Trichloroethane     | 79-00-5  | <chem>ClCC(Cl)Cl</chem>              | 0                       | Class 1          |                        | -1.482                     | -3.870                     |

| Substance name        | CAS #     | SMILES       | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|-----------------------|-----------|--------------|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| 1,1,2-Trichloroethane | 79-00-5   | ClCC(Cl)Cl   | 0                       | Class 1          |                        | -1.482                     | -3.492                     |
| 1,1,2-Trichloroethane | 79-00-5   | ClCC(Cl)Cl   | 0                       | Class 1          |                        | -1.482                     | -3.492                     |
| Chlorobenzene         | 108-90-7  | c1ccc(cc1)Cl | 0                       | Class 1          |                        | -2.351                     | -3.636                     |
| n-Pentane             | 109-66-0  | CCCCC        | 0                       | Class 1          |                        | -3.273                     | -4.427                     |
| n-Heptane             | 142-82-5  | CCCCCCC      | 0                       | Class 1          |                        | -4.469                     | -4.825                     |
| n-Octane              | 111-65-9  | CCCCCCCC     | 0                       | Class 1          |                        | -5.238                     | -5.581                     |
| n-Octane              | 111-65-11 | CCCCCCCC     | 0                       | Class 1          |                        | -5.238                     | -5.581                     |
| n-Octane              | 111-65-12 | CCCCCCCC     | 0                       | Class 1          |                        | -5.238                     | -5.478                     |
| n-Nonane              | 111-84-2  | CCCCCCCCC    | 0                       | Class 1          |                        | -5.766                     | -5.807                     |
| n-Nonane              | 111-84-3  | CCCCCCCCC    | 0                       | Class 1          |                        | -5.766                     | -5.807                     |
| 2-Methylbutane        | 78-78-4   | CC(C)CC      | 0                       | Class 1          |                        | -3.179                     | -4.427                     |
| Cyclohexane           | 110-82-7  | C(CCCC1)C1   | 0                       | Class 1          |                        | -3.209                     | -4.971                     |
| Cyclohexane           | 110-82-7  | C(CCCC1)C1   | 0                       | Class 1          |                        | -3.209                     | -4.348                     |
| Hex-1-ene             | 592-41-6  | CCCC=C       | 0                       | Class 1          |                        | -3.253                     | -4.282                     |
| Dec-1-ene             | 872-05-9  | CCCCCCCC=C   | 0                       | Class 1          |                        |                            |                            |
| Dodec-1-ene           | 112-41-4  | CCCCCCCCC=C  | 0                       | Class 1          |                        |                            |                            |

| Substance name     | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|--------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| Dimethyl phthalate | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>        |                         | Class 5          | Class 1                | -1.665                     | -3.626                     |
| Dimethyl phthalate | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>        |                         | Class 5          | Class 1                | -1.665                     | -3.452                     |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>      |                         | Class 5          | Class 1                | -2.305                     | -3.412                     |
| Diethyl phthalate  | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>      |                         | Class 5          | Class 1                | -2.305                     | -4.334                     |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem>  | O                       | Class 5          | Class 1                | -4.388                     | -4.969                     |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem>  | O                       | Class 5          | Class 1                | -4.388                     | -4.646                     |
| Dibutyl phthalate  | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem>  | O                       | Class 5          | Class 1                | -4.388                     | -5.746                     |
| Nitrobenzene       | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.811                     | -3.546                     |
| Nitrobenzene       | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.811                     | -3.659                     |
| 2-Nitrotoluene     | 88-72-2  | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.497                     | -4.405                     |
| 3-Nitrotoluene     | 99-08-1  | <chem>N(=O)(=O)c(cccc1C)c1</chem>              |                         | Class 2          | Class 1                | -2.515                     | -4.268                     |
| 3-Nitrotoluene     | 99-08-1  | <chem>N(=O)(=O)c(cccc1C)c1</chem>              |                         | Class 2          | Class 1                | -2.515                     | -4.262                     |
| 4-Nitrotoluene     | 99-99-0  | <chem>N(=O)(=O)c(ccc(c1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.406                     | -4.514                     |
| Bisphenol-A        | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -5.317                     |
| Bisphenol-A        | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -4.350                     |
| Bisphenol-A        | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -5.376                     |

| Substance name                                  | CAS #     | SMILES                                   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|---|-----------|--|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| Aniline   | 62-53-3   | <chem>Nc(cccc1)c1</chem>                 | N                       | Class 2          |                        | -0.425                     | -5.765                     |
| Aniline   | 62-53-3   | <chem>Nc(cccc1)c1</chem>                 | N                       | Class 2          |                        | -0.425                     | -5.765                     |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -4.248                     |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -4.766                     |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -3.940                     |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          |                        | -2.238                     | -4.371                     |
| Phenol  | 108-95-2  | <chem>Oc(cccc1)c1</chem>                 | N                       | Class 2          |                        | 0.026                      | -4.482                     |
| 4,4'-Methylenedianiline                         | 101-77-9  | <chem>Nc(ccc(c1)Cc(ccc(N)c2)c2)c1</chem> | N                       | Class 2          |                        | -1.650                     | -4.905                     |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          |                        | -1.565                     | -5.154                     |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          |                        | -1.565                     | -4.899                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -5.848                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -5.931                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.812                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.762                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -3.417                     |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          |                        | -1.986                     | -4.704                     |

| Substance name      | CAS #    | SMILES                            | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|---------------------|----------|-----------------------------------|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.397                     |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.848                     |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -5.566                     |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -5.033                     |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          |                        | -1.986                     | -4.747                     |
| 2-Chlorophenol      | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.240                     |
| 2-Chlorophenol      | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.694                     |
| 2-Chlorophenol      | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.317                     |
| 2-Chlorophenol      | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          |                        | -0.654                     | -4.393                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.711                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.496                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.426                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.277                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.166                     |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>     | N                       | Class 2          |                        | -0.498                     | -4.160                     |
| Acetaldehyde        | 75-07-0  | <chem>O=CC</chem>                 | N                       | Class 3          |                        | 1.744                      | -2.885                     |

| Substance name      | CAS #    | SMILES                                     | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|---------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| Heptanal            | 111-71-7 | O=CCCCCCC                                  | N                       | Class 3          |                        | -1.961                     | -4.442                     |
| Nonanal             | 124-19-6 | O=CCCCCCCC                                 | N                       | Class 3          |                        | -3.126                     | -4.920                     |
| Hexachlorobutadiene | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl             | N                       | Class 3          |                        | -5.010                     | -6.302                     |
| Hexachlorobutadiene | 87-68-3  | Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl             | N                       | Class 3          |                        | -5.010                     | -6.018                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.900                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.949                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.606                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.856                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.856                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -6.809                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -8.317                     |
| Heptachlor          | 76-44-8  | ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl | N                       | Class 4          |                        | -5.619                     | -8.531                     |
| Lindane             | 58-89-9  | C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl             | N                       | Class 4          |                        | -3.734                     | -5.801                     |
| Lindane             | 58-89-9  | C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl             | N                       | Class 4          |                        | -3.734                     | -5.606                     |
| Lindane             | 58-89-9  | C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl             | N                       | Class 4          |                        | -3.734                     | -7.464                     |
| Lindane             | 58-89-9  | C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl             | N                       | Class 4          |                        | -3.734                     | -7.464                     |

| Substance name         | CAS #    | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|------------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -9.233                     |
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -5.464                     |
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -7.765                     |
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -5.731                     |
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>               | N                       | Class 4          |                        | -3.734                     | -5.890                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -7.877                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.508                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.319                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.197                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.271                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.550                     |
| DDT                    | 50-29-3  | <chem>c(ccc(c1)Cl)(c1)C(c(ccc(c2)Cl)c2)C(Cl)(Cl)Cl</chem> | N                       | Class 4          |                        | -6.983                     | -8.152                     |
| Pentachlorobenzene     | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>                  | N                       | Class 4          |                        | -4.976                     | -5.921                     |
| Pentachlorobenzene     | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>                  | N                       | Class 4          |                        | -4.976                     | -6.312                     |
| Dimethyl phthalate     | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>                   |                         | Class 5          |                        | -1.665                     | -3.626                     |
| Butyl benzyl phthalate | 85-68-7  | <chem>O=C(OCc(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem>      |                         | Class 5          |                        | -5.063                     | -5.239                     |



| Substance name         | CAS #     | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log L(E)C50 (mol/L) |
|------------------------|-----------|---|-------------------------|------------------|------------------------|----------------------------|----------------------------|
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(c1cccc1)c1c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -4.926                     |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(c1cccc1)c1c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -5.453                     |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(c1cccc1)c1c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -5.280                     |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(c1cccc1)c1c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -5.540                     |
| Atrazine               | 1912-24-9 | <chem>n(c(nc(n1)NC(C)C)NCC)c1Cl</chem>                | N                       | Class 5          |                        | -2.321                     | -3.871                     |

**Table 6: Algae Acute**

| A = 1.0 |    | A = 0.1 |    | A = 0.01 |    | A = 0.001 |     |
|---------|----|---------|----|----------|----|-----------|-----|
| X       | Y  | X       | Y  | X        | Y  | X         | Y   |
| 0       | 0  | 0       | -1 | 0        | -2 | 0         | -3  |
| -1      | -1 | -1      | -2 | -1       | -3 | -1        | -4  |
| -2      | -2 | -2      | -3 | -2       | -4 | -2        | -5  |
| -3      | -3 | -3      | -4 | -3       | -5 | -3        | -6  |
| -4      | -4 | -4      | -5 | -4       | -6 | -4        | -7  |
| -5      | -5 | -5      | -6 | -5       | -7 | -5        | -8  |
| -6      | -6 | -6      | -7 | -6       | -8 | -6        | -9  |
| -7      | -7 | -7      | -8 | -7       | -9 | -7        | -10 |

| Substance name          | CAS #      | SMILES           | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>1</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|-------------------------|------------|------------------|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| 1-Hexanol               | 111-27-3   | OCCCCC           | O                       | Class 1          |                        | -1.239                     | -3.106                    |
| 1-Octanol               | 111-87-5   | OCCCCCCC         | O                       | Class 1          |                        | -2.373                     | -3.968                    |
| 1-Dodecanol             | 112-53-8   | OCCCCCCCCCCC     | O                       | Class 1          |                        | -4.985                     |                           |
| Isotridecanol           | 27458-92-0 | OCCCCCCCCCCC(C)C | O                       | Class 1          |                        | -5.302                     | -5.829                    |
| Cyclohexanol            | 108-93-0   | OC(CCCC1)C1      | O                       | Class 1          |                        | -0.444                     | -3.535                    |
| Benzyl alcohol          | 100-51-6   | OCc(cccc1)c1     | O                       | Class 1          |                        | -0.432                     | -2.335                    |
| Pentanol                | 94624-12-1 | CC(CCC)O         | O                       | Class 1          |                        | -0.591                     | -3.037                    |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | O                       | Class 1          |                        | -0.324                     | -2.254                    |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | O                       | Class 1          |                        | -0.324                     | -2.042                    |

| Substance name         | CAS #    | SMILES                               | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|------------------------|----------|--------------------------------------|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| Chloroform             | 67-66-3  | <chem>ClC(Cl)Cl</chem>               | O                       | Class 1          |                        | -1.137                     | -3.953                    |
| Carbon tetrachloride   | 56-23-5  | <chem>ClC(Cl)(Cl)Cl</chem>           | O                       | Class 1          |                        | -2.260                     | -3.886                    |
| Trichloroethylene      | 79-01-6  | <chem>ClC=C(Cl)Cl</chem>             | O                       | Class 1          |                        | -2.078                     | -3.557                    |
| Trichloroethylene      | 79-01-6  | <chem>ClC=C(Cl)Cl</chem>             | O                       | Class 1          |                        | -2.078                     | -2.466                    |
| Trichloroethylene      | 79-01-6  | <chem>ClC=C(Cl)Cl</chem>             | O                       | Class 1          |                        | -2.078                     | -2.876                    |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>       | O                       | Class 1          |                        | -3.044                     | -4.659                    |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>       | O                       | Class 1          |                        | -3.044                     | -4.199                    |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>                  | O                       | Class 1          |                        | -1.098                     | -2.775                    |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>                  | O                       | Class 1          |                        | -1.098                     | -2.667                    |
| 1,2,4-Trichlorobenzene | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>      | O                       | Class 1          |                        | -3.681                     | -5.113                    |
| 1,2,4-Trichlorobenzene | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>      | O                       | Class 1          |                        | -3.681                     | -4.503                    |
| 1,2,4-Trichlorobenzene | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>      | O                       | Class 1          |                        | -3.681                     | -4.511                    |
| 1,3-Dichlorobenzene    | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>     | O                       | Class 1          |                        | -3.070                     | -4.341                    |
| 1,4-Dichlorobenzene    | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | O                       | Class 1          |                        | -2.969                     | -4.963                    |
| 1,4-Dichlorobenzene    | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | O                       | Class 1          |                        | -2.969                     | -3.676                    |
| 1,2-Dichlorobenzene    | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          |                        | -2.975                     | -4.825                    |
| 1,2,3-Trichlorobenzene | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          |                        | -3.487                     | -5.305                    |
| 1,2,3-Trichlorobenzene | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          |                        | -3.487                     | -5.055                    |

| Substance name         | CAS #    | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>t</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|------------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| 1,2,3-Trichlorobenzene | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem>          | O                       | Class 1          |                        | -3.487                     | -5.217                    |
| 1,1,1-Trichloroethane  | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>                   | O                       | Class 1          |                        | -2.028                     | -5.396                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -3.347                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -2.710                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -2.824                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -2.824                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -2.895                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -2.824                    |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>C1CC(Cl)Cl</chem>                       | O                       | Class 1          |                        | -1.482                     | -3.369                    |
| Chlorobenzene          | 108-90-7 | <chem>c1ccc(cc1)Cl</chem>                     | O                       | Class 1          |                        | -2.351                     | -3.954                    |
| n-Pentane              | 109-66-0 | <chem>CCCCC</chem>                            | O                       | Class 1          |                        | -3.273                     | -3.983                    |
| Cyclohexane            | 110-82-7 | <chem>C1CCCCC1</chem>                         | O                       | Class 1          |                        | -3.209                     | -3.956                    |
| Hex-1-ene              | 592-41-6 | <chem>CCCC=C</chem>                           | O                       | Class 1          |                        | -3.253                     | -4.272                    |
| Dimethyl phthalate     | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>       |                         | Class 5          | Class 1                | -1.665                     | -3.136                    |
| Diethyl phthalate      | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>     |                         | Class 5          | Class 1                | -2.305                     | -4.143                    |
| Dibutyl phthalate      | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem> | O                       | Class 5          | Class 1                | -4.388                     | -5.842                    |
| Nitrobenzene           | 98-95-3  | <chem>N(=O)(=O)c(ccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.811                     | -3.835                    |
| Nitrobenzene           | 98-95-3  | <chem>N(=O)(=O)c(ccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.811                     | -3.643                    |

| Substance name                                  | CAS #     | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|---|-----------|--|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| 2-Nitrotoluene                                  | 88-72-2   | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.497                     | -3.795                    |
| 4-Nitrotoluene                                  | 99-99-0   | <chem>N(=O)(=O)c(ccc(c1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.406                     | -3.795                    |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -3.993                    |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.010                    |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.507                    |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -3.940                    |
| 4-Nitrochlorobenzene                            | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.010                    |
| Bisphenol-A                                     | 80-05-7   | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -4.927                    |
| Bisphenol-A                                     | 80-05-7   | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -5.359                    |
| Aniline   | 62-53-3   | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -2.726                    |
| Aniline   | 62-53-3   | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -2.094                    |
| Phenol  | 108-95-2  | <chem>Oc(cccc1)c1</chem>                       | N                       | Class 2          |                        | 0.026                      | -3.188                    |
| 4,4'-Methylenedianiline                         | 101-77-9  | <chem>Nc(ccc(c1)Cc(ccc(N)c2)c2)c1</chem>       | N                       | Class 2          |                        | -1.650                     | -4.139                    |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>               | N                       | Class 2          |                        | -1.565                     | -3.984                    |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>              | N                       | Class 2          |                        | -1.986                     | -4.528                    |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>              | N                       | Class 2          |                        | -1.986                     | -5.033                    |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>              | N                       | Class 2          |                        | -1.986                     | -4.867                    |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>              | N                       | Class 2          |                        | -1.986                     | -4.829                    |

| Substance name       | CAS #    | SMILES                                  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>1</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|----------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| 3,4-Dichloroaniline  | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>       | N                       | Class 2          |                        | -1.986                     | -4.704                    |
| 3,4-Dichloroaniline  | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>       | N                       | Class 2          |                        | -1.986                     | -5.168                    |
| 3,4-Dichloroaniline  | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>       | N                       | Class 2          |                        | -1.986                     | -5.556                    |
| 2-Chlorophenol       | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>            | N                       | Class 2          |                        | -0.654                     | -3.410                    |
| 2-Chlorophenol       | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>            | N                       | Class 2          |                        | -0.654                     | -3.264                    |
| 2-Chlorophenol       | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>            | N                       | Class 2          |                        | -0.654                     | -2.879                    |
| 3-Chlorophenol       | 108-43-0 | <chem>C1C=CC(O)=CC=C1</chem>            | N                       | Class 2          |                        | -0.610                     | -3.647                    |
| 4-Chlorophenol       | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>           | N                       | Class 2          |                        | -0.498                     | -3.647                    |
| 4-Chlorophenol       | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>           | N                       | Class 2          |                        | -0.498                     | -3.529                    |
| 4-Chlorophenol       | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>           | N                       | Class 2          |                        | -0.498                     | -4.109                    |
| 4-Chlorophenol       | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>           | N                       | Class 2          |                        | -0.498                     | -4.127                    |
| 4-Nitrophenol        | 100-02-7 | <chem>N(=O)(=O)c(ccc(O)c1)c1</chem>     | N                       | Class 2          |                        | 0.028                      | -3.638                    |
| 4-Nitrophenol        | 100-02-7 | <chem>N(=O)(=O)c(ccc(O)c1)c1</chem>     | N                       | Class 2          |                        | 0.028                      | -4.126                    |
| Acrolein             | 107-02-8 | <chem>O=CC=C</chem>                     | N                       | Class 3          |                        | 0.570                      | -5.963                    |
| Heptanal             | 111-71-7 | <chem>O=CCCCCCC</chem>                  | N                       | Class 3          |                        | -1.961                     | -4.595                    |
| 4-Chlorobenzaldehyde | 104-88-1 | <chem>C1C=CC=C(C=O)C=C1</chem>          | N                       | Class 3          |                        | -1.966                     | -4.219                    |
| Pentachlorobenzene   | 608-93-5 | <chem>C1C=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -4.976                     |                           |
| Pentachlorobenzene   | 608-93-5 | <chem>C1C=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -4.976                     |                           |

| Substance name         | CAS #     | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>1</sub> (mol/L) | Algae log L(E)C50 (mol/L) |
|------------------------|-----------|--|-------------------------|------------------|------------------------|----------------------------|---------------------------|
| Hexachlorobenzene      | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem>          | N                       | Class 4          |                        | -5.717                     |                           |
| Butyl benzyl phthalate | 85-68-7   | <chem>O=C(OCC(c1ccc1)c1c(c2ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -5.717                    |
| Atrazine               | 1912-24-9 | <chem>n(c(nc(n1)NC(C)C)NCC)c1Cl</chem>               | N                       | Class 5          |                        | -2.321                     | -6.700                    |

**Table 7: Fish Chronic**

| A = 1.0 |    | A = 0.1 |    | A = 0.01 |    | A = 0.001 |     |
|---------|----|---------|----|----------|----|-----------|-----|
| X       | Y  | X       | Y  | X        | Y  | X         | Y   |
| 0       | 0  | 0       | -1 | 0        | -2 | 0         | -3  |
| -1      | -1 | -1      | -2 | -1       | -3 | -1        | -4  |
| -2      | -2 | -2      | -3 | -2       | -4 | -2        | -5  |
| -3      | -3 | -3      | -4 | -3       | -5 | -3        | -6  |
| -4      | -4 | -4      | -5 | -4       | -6 | -4        | -7  |
| -5      | -5 | -5      | -6 | -5       | -7 | -5        | -8  |
| -6      | -6 | -6      | -7 | -6       | -8 | -6        | -9  |
| -7      | -7 | -7      | -8 | -7       | -9 | -7        | -10 |

| Substance name           | CAS #     | SMILES                                      | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>t</sub> (mol/L) | Invert log EC <sub>10</sub> /NOEC (mol/L) |
|--------------------------|-----------|---|-------------------------|------------------|------------------------|----------------------------|---|
| Phenanthrene             | 85-01-8   | <chem>c(c(c(c1ccc2)c2)ccc3)(c1)c3</chem>    |                         | Class 1          |                        | -4.666                     | -7.552                                    |
| Phenanthrene             | 85-01-8   | <chem>c(c(c(c1ccc2)c2)ccc3)(c1)c3</chem>    |                         | Class 1          |                        | -4.666                     | -6.503                                    |
| Phenanthrene             | 85-01-8   | <chem>c(c(c(c1ccc2)c2)ccc3)(c1)c3</chem>    |                         | Class 1          |                        | -4.666                     | -6.736                                    |
| Phenanthrene             | 85-01-8   | <chem>c(c(c(c1ccc2)c2)ccc3)(c1)c3</chem>    |                         | Class 1          |                        | -4.666                     | -6.608                                    |
| Phenanthrene             | 85-01-8   | <chem>c(c(c(c1ccc2)c2)ccc3)(c1)c3</chem>    |                         | Class 1          |                        | -4.666                     | -6.552                                    |
| 1-Methylphenanthrene     | 832-69-9  | <chem>c1ccc2c3cccc(C)c3ccc2c1</chem>        |                         | Class 1          |                        | -4.884                     | -6.284                                    |
| 1,7-Dimethylphenanthrene | 483-87-4  | <chem>Cc3cccc2c3ccc1c2ccc(c1)C</chem>       |                         | Class 1          |                        | -5.488                     | -7.110                                    |
| 2,7-Dimethylphenanthrene | 1576-69-8 | <chem>c(cc(c1cc2)c(ccc3C)c2c3)c(c1)C</chem> |                         | Class 1          |                        | -5.488                     | -7.201                                    |
| 2-Ethylphenanthrene      | 3674-74-6 | <chem>c(ccc1c(ccc2CC)c3c2)cc1cc3</chem>     |                         | Class 1          |                        | -5.564                     | -6.917                                    |



| Substance name       | CAS #    | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|----------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Toluene              | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                            |                         | Class 1          |                        | -2.243                     | -4.818                       |
| Toluene              | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                            |                         | Class 1          |                        | -2.243                     | -4.459                       |
| Toluene              | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                            |                         | Class 1          |                        | -2.243                     | -4.818                       |
| Toluene              | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                            |                         | Class 1          |                        | -2.243                     | -4.126                       |
| Dibenzothiophene     | 132-65-0 | <chem>s(c(c(c1cccc2)ccc3)c3)c12</chem>                |                         | Class 1          |                        | -4.366                     | -6.265                       |
| Retene               | 483-65-8 | <chem>c(ccc1c(ccc2C(C)C)c3c2)c(C)c1cc3</chem>         |                         | Class 1          |                        | -6.531                     |                              |
| Naphthalene          | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>                     |                         | Class 1          |                        | -3.419                     | -6.066                       |
| Naphthalene          | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>                     |                         | Class 1          |                        | -3.419                     | -6.029                       |
| Naphthalene          | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>                     |                         | Class 1          |                        | -3.419                     | -5.528                       |
| Naphthalene          | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>                     |                         | Class 1          |                        | -3.419                     | -5.455                       |
| Acenaphthene         | 83-32-9  | <chem>c(c(ccc1)ccc2)(c1CC3)c23</chem>                 |                         | Class 1          |                        | -3.920                     | -5.472                       |
| Acenaphthene         | 83-32-9  | <chem>c(c(ccc1)ccc2)(c1CC3)c23</chem>                 |                         | Class 1          |                        | -3.920                     | -6.489                       |
| Acenaphthene         | 83-32-9  | <chem>c(c(ccc1)ccc2)(c1CC3)c23</chem>                 |                         | Class 1          |                        | -3.920                     | -5.667                       |
| Acenaphthene         | 83-32-9  | <chem>c(c(ccc1)ccc2)(c1CC3)c23</chem>                 |                         | Class 1          |                        | -3.920                     | -6.382                       |
| Benzo[a]pyrene       | 50-32-8  | <chem>c(c(c(cc1)ccc2)c2cc3)(c3cc(c4ccc5)c5)c14</chem> |                         | Class 1          |                        | -6.767                     |                              |
| Benzo[k]fluoranthene | 207-08-9 | <chem>c2ccc1cc3c(cc1c2)c4cccc5cccc3c45</chem>         |                         | Class 1          |                        | -7.074                     | -9.040                       |
| Dichloromethane      | 75-09-2  | <chem>ClCCl</chem>                                    | O                       | Class 1          |                        | -0.815                     | -3.010                       |

| Substance name            | CAS #    | SMILES                  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|---------------------------|----------|-------------------------|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Dichloromethane           | 75-09-2  | ClCCl                   | O                       | Class 1          |                        | -0.815                     | -2.777                       |
| Carbon tetrachloride      | 56-23-5  | ClC(Cl)(Cl)Cl           | O                       | Class 1          |                        | -2.260                     | -4.789                       |
| Trichloroethylene         | 79-01-6  | ClC=C(Cl)Cl             | O                       | Class 1          |                        | -2.078                     | -4.359                       |
| Tetrachlorethylene        | 127-18-4 | Cl/C(Cl)=C(/Cl)Cl       | O                       | Class 1          |                        | -3.044                     | -4.851                       |
| Tetrachlorethylene        | 127-18-4 | Cl/C(Cl)=C(/Cl)Cl       | O                       | Class 1          |                        | -3.044                     | -4.921                       |
| 1,2,4-Trichlorobenzene    | 120-82-1 | Clc1ccc(Cl)c(Cl)c1      | O                       | Class 1          |                        | -3.681                     | -6.657                       |
| 1,2,4-Trichlorobenzene    | 120-82-1 | Clc1ccc(Cl)c(Cl)c1      | O                       | Class 1          |                        | -3.681                     | -5.844                       |
| 1,3-Dichlorobenzene       | 541-73-1 | C1=CC(=CC(=C1)Cl)Cl     | O                       | Class 1          |                        | -3.070                     | -5.167                       |
| 1,4-Dichlorobenzene       | 106-46-7 | ClC1=CC=C(Cl)C=C1       | O                       | Class 1          |                        | -2.969                     | -5.866                       |
| 1,4-Dichlorobenzene       | 106-46-7 | ClC1=CC=C(Cl)C=C1       | O                       | Class 1          |                        | -2.969                     | -5.411                       |
| 1,2-Dichlorobenzene       | 95-50-1  | c1ccc(c(c1)Cl)Cl        | O                       | Class 1          |                        | -2.975                     | -5.599                       |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | ClC(Cl)C(Cl)Cl          | O                       | Class 1          |                        | -1.763                     | -3.882                       |
| 1,2,3-Trichlorobenzene    | 87-61-6  | C1=CC(=C(C(=C1)Cl)Cl)Cl | O                       | Class 1          |                        | -3.487                     | -5.754                       |
| 1,2,3-Trichlorobenzene    | 87-61-6  | C1=CC(=C(C(=C1)Cl)Cl)Cl | O                       | Class 1          |                        | -3.487                     | -5.861                       |
| 1,1,1-Trichloroethane     | 71-55-6  | C(Cl)(Cl)(Cl)C          | O                       | Class 1          |                        | -2.028                     | -4.239                       |
| 1,1,2-Trichloroethane     | 79-00-5  | ClCC(Cl)Cl              | O                       | Class 1          |                        | -1.482                     | -4.648                       |
| 1,1,2-Trichloroethane     | 79-00-5  | ClCC(Cl)Cl              | O                       | Class 1          |                        | -1.482                     | -3.866                       |

| Substance name                                  | CAS #     | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|---|-----------|--|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| 1,1,2-Trichloroethane                           | 79-00-5   | <chem>C1CC(Cl)Cl</chem>                              | O                       | Class 1          |                        | -1.482                     | -3.663                       |
| Chlorobenzene                                   | 108-90-7  | <chem>c1ccc(cc1)Cl</chem>                            | O                       | Class 1          |                        | -2.351                     | -4.370                       |
| Nitrobenzene                                    | 98-95-3   | <chem>N(=O)(=O)c1ccccc1</chem>                       | O                       | Class 2          | Class 1                | -1.811                     | -4.391                       |
| 2-Nitrotoluene                                  | 88-72-2   | <chem>N(=O)(=O)c1c(ccc1)C</chem>                     | O                       | Class 2          | Class 1                | -2.497                     | -4.858                       |
| 3-Nitrotoluene                                  | 99-08-1   | <chem>N(=O)(=O)c1cccc1C</chem>                       |                         | Class 2          | Class 1                | -2.515                     | -4.836                       |
| 4-Nitrotoluene                                  | 99-99-0   | <chem>N(=O)(=O)c1ccc(c1)C</chem>                     | O                       | Class 2          | Class 1                | -2.406                     | -5.234                       |
| Dimethyl phthalate                              | 131-11-3  | <chem>O=C(OC)c1c(ccc1)C(=O)OC</chem>                 |                         | Class 5          | Class 1                | -1.665                     | -4.247                       |
| Diethyl phthalate                               | 84-66-2   | <chem>O=C(OCC)c1c(ccc1)C(=O)OCC</chem>               |                         | Class 5          | Class 1                |                            |                              |
| Dibutyl phthalate                               | 84-74-2   | <chem>O=C(OCCCC)c1c(ccc1)C(=O)OCCCC</chem>           | O                       | Class 5          | Class 1                | -4.388                     | -6.445                       |
| Bisphenol-A                                     | 80-05-7   | <chem>Oc1ccc(cc1)C(c2ccc(O)c2)C(c3ccc(O)c3)C1</chem> | N                       | Class 2          |                        | -1.594                     | -7.154                       |
| Bisphenol-A                                     | 80-05-7   | <chem>Oc1ccc(cc1)C(c2ccc(O)c2)C(c3ccc(O)c3)C1</chem> | N                       | Class 2          |                        | -1.594                     | -6.539                       |
| Bisphenol-A                                     | 80-05-7   | <chem>Oc1ccc(cc1)C(c2ccc(O)c2)C(c3ccc(O)c3)C1</chem> | N                       | Class 2          |                        | -1.594                     | -5.552                       |
| Aniline   | 62-53-3   | <chem>Nc1ccccc1</chem>                               | N                       | Class 2          |                        | -0.425                     | -5.378                       |
| Aniline   | 62-53-3   | <chem>Nc1ccccc1</chem>                               | N                       | Class 2          |                        | -0.425                     | -4.714                       |
| Phenol  | 108-95-2  | <chem>Oc1ccccc1</chem>                               | N                       | Class 2          |                        | 0.026                      | -6.087                       |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>                     | N                       | Class 2          |                        | -1.565                     | -5.455                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>                    | N                       | Class 2          |                        | -1.986                     | -6.704                       |

| Substance name      | CAS #    | SMILES                                      | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|---------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -5.138                       |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -6.908                       |
| 3,4-Dichloroaniline | 95-76-1  | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -6.908                       |
| 2-Chlorophenol      | 95-57-8  | <chem>ClC1=C(O)C=CC=C1</chem>               | N                       | Class 2          |                        | -0.654                     | -4.507                       |
| 4-Chlorophenol      | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>               | N                       | Class 2          |                        | -0.498                     | -5.604                       |
| Acrolein            | 107-02-8 | <chem>O=CC=C</chem>                         | N                       | Class 3          |                        | 0.570                      | -6.691                       |
| Hexachlorobutadiene | 87-68-3  | <chem>Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl</chem> | N                       | Class 3          |                        | -5.010                     | -7.603                       |
| Hexachlorobutadiene | 87-68-3  | <chem>Cl/C(Cl)=C(\Cl)C(\Cl)=C(/Cl)Cl</chem> | N                       | Class 3          |                        | -5.010                     | -7.434                       |
| Pentachlorobenzene  | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>    | N                       | Class 4          |                        | -4.976                     | -6.658                       |
| Pentachlorobenzene  | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>    | N                       | Class 4          |                        | -4.976                     | -6.867                       |
| Pentachlorobenzene  | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>    | N                       | Class 4          |                        | -4.976                     | -6.867                       |
| Pentachlorobenzene  | 608-93-5 | <chem>ClC1=CC(=C(Cl)C(=C1Cl)Cl)Cl</chem>    | N                       | Class 4          |                        | -4.976                     | -6.658                       |
| Hexachlorobenzene   | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -7.773                       |
| Hexachlorobenzene   | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -7.875                       |
| Hexachlorobenzene   | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -7.886                       |
| Hexachlorobenzene   | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     |                              |

| Substance name    | CAS #   | SMILES                                      | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|-------------------|---------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -6.640                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -8.103                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -6.792                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.027                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.010                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.195                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.346                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.279                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.195                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.823                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.045                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -6.457                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.580                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.580                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -6.753                       |
| Pentachlorophenol | 87-86-5 | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>    | N                       | Class 4          |                        | -3.474                     | -7.425                       |
| Lindane           | 58-89-9 | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem> | N                       | Class 4          |                        | -3.734                     | -8.561                       |

| Substance name         | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|------------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Butyl benzyl phthalate | 85-68-7  | <chem>O=C(OCc1ccc1)c(c2ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -6.194                       |
| Butyl benzyl phthalate | 85-68-7  | <chem>O=C(OCc1ccc1)c(c2ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -6.319                       |
| Fluoranthene           | 206-44-0 | <chem>c(c1ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>    |                         | Class 5          |                        | -5.072                     | -6.963                       |
| Fluoranthene           | 206-44-0 | <chem>c(c1ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>    |                         | Class 5          |                        | -5.072                     | -7.493                       |
| Fluoranthene           | 206-44-0 | <chem>c(c1ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>    |                         | Class 5          |                        | -5.072                     | -6.289                       |

**Table 8: Invertebrate Chronic**

| A = 1.0 |    | A = 0.1 |    | A = 0.01 |    | A = 0.001 |     |
|---------|----|---------|----|----------|----|-----------|-----|
| X       | Y  | X       | Y  | X        | Y  | X         | Y   |
| 0       | 0  | 0       | -1 | 0        | -2 | 0         | -3  |
| -1      | -1 | -1      | -2 | -1       | -3 | -1        | -4  |
| -2      | -2 | -2      | -3 | -2       | -4 | -2        | -5  |
| -3      | -3 | -3      | -4 | -3       | -5 | -3        | -6  |
| -4      | -4 | -4      | -5 | -4       | -6 | -4        | -7  |
| -5      | -5 | -5      | -6 | -5       | -7 | -5        | -8  |
| -6      | -6 | -6      | -7 | -6       | -8 | -6        | -9  |
| -7      | -7 | -7      | -8 | -7       | -9 | -7        | -10 |

| Substance name          | CAS #     | SMILES           | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>t</sub> (mol/L) | Invert log EC <sub>10</sub> /NOEC (mol/L) |
|-------------------------|-----------|------------------|-------------------------|------------------|------------------------|----------------------------|---|
| 1-Octanol               | 111-87-5  | CCCCCCCC         | O                       | Class 1          |                        | -2.373                     | -5.115                                    |
| 1-Decanol               | 112-30-1  | CCCCCCCCC        | O                       | Class 1          |                        | -3.603                     | -6.158                                    |
| 1-Dodecanol             | 112-53-8  | CCCCCCCCCCCC     | O                       | Class 1          |                        | -4.985                     | -7.124                                    |
| 1-Tetradecanol          | 112-72-1  | CCCCCCCCCCCCC    | O                       | Class 1          |                        | -5.907                     | -8.127                                    |
| 1-Pentadecanol          | 629-76-5  | CCCCCCCCCCCCCCC  | O                       | Class 1          |                        | -6.162                     | -7.467                                    |
| 1-Octadecanol           | 112-92-5  | CCCCCCCCCCCCCCCC | O                       | Class 1          |                        |                            |   |
| Benzyl alcohol          | 100-51-6  | OC(c1ccccc1)c1   | O                       | Class 1          |                        | -0.432                     | -3.326                                    |
| tert-Butyl methyl ether | 1634-04-4 | O(C(C)(C)C)C     | O                       | Class 1          |                        | -0.324                     | -3.530                                    |
| tert-Butyl methyl ether | 1634-04-4 | O(C(C)(C)C)C     | O                       | Class 1          |                        | -0.324                     | -3.238                                    |

| Substance name         | CAS #    | SMILES                                    | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|------------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -7.137                       |
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -6.570                       |
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -6.495                       |
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -6.503                       |
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -6.746                       |
| Phenanthrene           | 85-01-8  | <chem>c(c(c(c1)ccc2)c2)ccc3)(c1)c3</chem> |                         | Class 1          |                        | -4.666                     | -5.996                       |
| Perhydrophenanthrene   |          | <chem>C(C(C(C1)CCC2)C2)CCC3)(C1)C3</chem> |                         | Class 1          |                        | -6.671                     | -7.077                       |
| Benzene                | 71-43-2  | <chem>c(cccc1)c1</chem>                   |                         | Class 1          |                        | -1.096                     | -4.420                       |
| Toluene                | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                |                         | Class 1          |                        | -2.243                     | -5.097                       |
| Toluene                | 108-88-3 | <chem>c(cccc1)(c1)C</chem>                |                         | Class 1          |                        | -2.243                     | -4.964                       |
| Ethylbenzene           | 100-41-4 | <chem>c(cccc1)(c1)CC</chem>               |                         | Class 1          |                        | -2.798                     | -5.046                       |
| m-Xylene               | 108-38-3 | <chem>c(cccc1C)(c1)C</chem>               |                         | Class 1          |                        | -2.819                     | -4.905                       |
| p-Xylene               | 106-423  | <chem>c(ccc(c1)C)(c1)C</chem>             |                         | Class 1          |                        | -2.816                     | -4.830                       |
| Isopropylbenzene       | 98-82-8  | <chem>c(cccc1)(c1)C(C)C</chem>            |                         | Class 1          |                        | -3.292                     | -5.536                       |
| 1,3,5-Trimethylbenzene | 108-67-8 | <chem>c(cc(cc1C)C)(c1)C</chem>            |                         | Class 1          |                        | -3.397                     | -5.478                       |
| Biphenyl               | 92-52-2  | <chem>c(c(cccc1)c1)(cccc2)c2</chem>       |                         | Class 1          |                        | -3.911                     | -5.958                       |
| Naphthalene            | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>         |                         | Class 1          |                        | -3.419                     | -5.397                       |



| Substance name         | CAS #    | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|------------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Naphthalene            | 91-20-3  | <chem>c(c(ccc1)ccc2)(c1)c2</chem>                           |                         | Class 1          |                        | -3.419                     | -5.330                       |
| Acenaphthylene         | 208-96-8 | <chem>c1ccc2cccc3c2c1C=C3</chem>                            |                         | Class 1          |                        | -3.308                     | -6.376                       |
| Acenaphthene           | 83--32-9 | <chem>c(c(ccc1)ccc2)(c1CC3)c23</chem>                       |                         | Class 1          |                        | -3.920                     | -6.565                       |
| Fluorene               | 86-73-7  | <chem>c(c(c(c1ccc2)c2)ccc3)(c3)C1</chem>                    |                         | Class 1          |                        | -4.104                     | -6.823                       |
| Pyrene                 | 129-00-0 | <chem>c(c(c(cc1)ccc2)c2cc3)(c1ccc4)c34</chem>               |                         | Class 1          |                        | -4.927                     | -7.984                       |
| Benzo[a]pyrene         | 50-32-8  | <chem>c(c(c(cc1)ccc2)c2cc3)(c3cc(c4ccc5)c5)c14</chem>       |                         | Class 1          |                        | -6.767                     | -8.703                       |
| Benzo[ghi]perylene     | 191-24-2 | <chem>c16cccc2ccc3ccc4ccc5cccc6c5c4c3c12</chem>             |                         | Class 1          |                        | -6.523                     | -9.528                       |
| Indeno(123cd)pyrene    | 193-39-5 | <chem>c(c(c(c(ccc1)c2)c1cc3)c3cc4)(c2c(c5ccc6)c6)c45</chem> |                         | Class 1          |                        |                            |                              |
| Dibenz[ah]anthracene   | 53-70-3  | <chem>c(c(c(c(c1)ccc2)c2)cc(c3c(c4)ccc5)c5)c4)(c1)c3</chem> |                         | Class 1          |                        | -5.629                     | -9.967                       |
| Chloroform             | 67-66-3  | <chem>ClC(Cl)Cl</chem>                                      | O                       | Class 1          |                        | -1.137                     | -4.278                       |
| Carbon tetrachloride   | 56-23-5  | <chem>ClC(Cl)(Cl)Cl</chem>                                  | O                       | Class 1          |                        | -2.260                     | -4.682                       |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>                              | O                       | Class 1          |                        | -3.044                     | -5.512                       |
| Tetrachlorethylene     | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem>                              | O                       | Class 1          |                        | -3.044                     | -5.175                       |
| Chlorobutane           | 109-69-3 | <chem>ClCCCC</chem>   | O                       | Class 1          |                        | -2.925                     | -4.218                       |
| 1,2-Dichloroethane     | 107-06-2 | <chem>ClCCCl</chem>   | O                       | Class 1          |                        | -1.098                     | -3.954                       |
| 1,2,4-Trichlorobenzene | 120-82-1 | <chem>Clc1ccc(Cl)c(Cl)c1</chem>                             | O                       | Class 1          |                        | -3.681                     | -6.259                       |
| 1,3-Dichlorobenzene    | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>                            | O                       | Class 1          |                        | -3.070                     | -5.328                       |

| Substance name            | CAS #    | SMILES                               | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|---------------------------|----------|--------------------------------------|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| 1,3-Dichlorobenzene       | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>     | O                       | Class 1          |                        | -3.070                     | -5.435                       |
| 1,3-Dichlorobenzene       | 541-73-1 | <chem>C1=CC(=CC(=C1)Cl)Cl</chem>     | O                       | Class 1          |                        | -3.070                     | -5.468                       |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | O                       | Class 1          |                        | -2.969                     | -5.825                       |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>       | O                       | Class 1          |                        | -2.969                     | -5.690                       |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          |                        | -2.975                     | -5.427                       |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          |                        | -2.975                     | -5.368                       |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | O                       | Class 1          |                        | -1.763                     | -4.386                       |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          |                        | -3.487                     | -5.459                       |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          |                        | -3.487                     | -6.028                       |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          |                        | -3.487                     | -5.958                       |
| 1,1,2-Trichloroethane     | 79-00-5  | <chem>ClCC(Cl)Cl</chem>              | O                       | Class 1          |                        | -1.482                     | -3.870                       |
| 1,1,2-Trichloroethane     | 79-00-5  | <chem>ClCC(Cl)Cl</chem>              | O                       | Class 1          |                        | -1.482                     | -3.620                       |
| Chlorobenzene             | 108-90-7 | <chem>c1ccc(cc1)Cl</chem>            | O                       | Class 1          |                        | -2.351                     | -5.546                       |
| Chlorobenzene             | 108-90-7 | <chem>c1ccc(cc1)Cl</chem>            | O                       | Class 1          |                        | -2.351                     | -5.050                       |
| Dec-1-ene                 | 872-05-9 | <chem>CCCCCCCC=C</chem>              | O                       | Class 1          |                        | -5.545                     | -6.859                       |
| Nitrobenzene              | 98-95-3  | <chem>N(=O)(=O)c1ccccc1</chem>       | O                       | Class 2          | Class 1                | -1.811                     | -4.675                       |
| Nitrobenzene              | 98-95-3  | <chem>N(=O)(=O)c1ccccc1</chem>       | O                       | Class 2          | Class 1                | -1.811                     | -4.811                       |

| Substance name          | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|-------------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| 2-Nitrotoluene          | 88-72-2  | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.497                     | -5.438                       |
| 3-Nitrotoluene          | 99-08-1  | <chem>N(=O)(=O)c(cccc1C)c1</chem>              |                         | Class 2          | Class 1                | -2.515                     | -4.218                       |
| 4-Nitrotoluene          | 99-99-0  | <chem>N(=O)(=O)c(ccc(c1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.406                     | -5.292                       |
| Dimethyl phthalate      | 131-11-3 | <chem>O=C(OC)c(c(ccc1)C(=O)OC)c1</chem>        |                         | Class 5          | Class 1                | -1.665                     | -4.306                       |
| Diethyl phthalate       | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>      |                         | Class 5          | Class 1                | -2.305                     | -3.949                       |
| Diethyl phthalate       | 84-66-2  | <chem>O=C(OCC)c(c(ccc1)C(=O)OCC)c1</chem>      |                         | Class 5          | Class 1                | -2.305                     | -5.365                       |
| Dibutyl phthalate       | 84-74-2  | <chem>O=C(OCCCC)c(c(ccc1)C(=O)OCCCC)c1</chem>  | O                       | Class 5          | Class 1                | -4.388                     | -5.462                       |
| 4-Nitrochlorobenzene    | 100-00-5 | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.732                       |
| 4-Nitrochlorobenzene    | 100-00-5 | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.896                       |
| 4-Nitrochlorobenzene    | 100-00-5 | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -5.919                       |
| 4-Nitrochlorobenzene    | 100-00-5 | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.942                       |
| 4-Nitrochlorobenzene    | 100-00-5 | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem>       | O                       | Class 2          |                        | -2.238                     | -4.692                       |
| Bisphenol-A             | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -6.961                       |
| Bisphenol-A             | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -6.128                       |
| Aniline                 | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -7.367                       |
| Phenol                  | 108-95-2 | <chem>Oc(cccc1)c1</chem>                       | N                       | Class 2          |                        | 0.026                      | -5.311                       |
| 4,4'-Methylenedianiline | 101-77-9 | <chem>Nc(ccc(c1)Cc(ccc(N)c2)c2)c1</chem>       | N                       | Class 2          |                        | -1.650                     | -7.577                       |

| Substance name                                  | CAS #     | SMILES                                      | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|---|-----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>            | N                       | Class 2          |                        | -1.565                     | -5.406                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.397                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.511                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.210                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.431                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.461                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -7.130                       |
| 3,4-Dichloroaniline                             | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>           | N                       | Class 2          |                        | -1.986                     | -6.227                       |
| 2-Chlorophenol                                  | 95-57-8   | <chem>ClC1=C(O)C=CC=C1</chem>               | N                       | Class 2          |                        | -0.654                     | -5.410                       |
| 4-Chlorophenol                                  | 106-48-9  | <chem>OC1=CC=C(Cl)C=C1</chem>               | N                       | Class 2          |                        | -0.498                     | -5.310                       |
| Acrolein  | 107-02-8  | <chem>O=CC=C</chem>                         | N                       | Class 3          |                        | 0.570                      | -6.520                       |
| Salicylaldehyde                                 | 90-02-8   | <chem>O=Cc(c(O)ccc1)c1</chem>               | N                       | Class 3          |                        | -0.856                     | -5.973                       |
| Hexachlorobenzene                               | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     |                              |
| Hexachlorobenzene                               | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     |                              |
| Hexachlorobenzene                               | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -8.199                       |
| Hexachlorobenzene                               | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -7.782                       |
| Hexachlorobenzene                               | 118-74-1  | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.717                     | -7.756                       |

| Substance name    | CAS #    | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|-------------------|----------|---|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Hexachlorobenzene | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem>             | N                       | Class 4          |                        | -5.717                     |                              |
| Hexachlorobenzene | 118-74-1 | <chem>c1(c(c(c(c(c1Cl)Cl)Cl)Cl)Cl)Cl</chem>             | N                       | Class 4          |                        | -5.717                     |                              |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.948                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.124                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.606                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.332                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.857                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.124                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -7.170                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -7.221                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.481                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.425                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -7.221                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -7.425                       |
| Pentachlorophenol | 87-86-5  | <chem>Oc1c(Cl)c(Cl)c(Cl)c(Cl)c1Cl</chem>                | N                       | Class 4          |                        | -3.474                     | -6.425                       |
| Heptachlor        | 76-44-8  | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.619                     | -7.396                       |
| Lindane           | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>             | N                       | Class 4          |                        | -3.734                     | -6.464                       |

| Substance name         | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Invert log EC10/NOEC (mol/L) |
|------------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|------------------------------|
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>          | N                       | Class 4          |                        | -3.734                     | -6.723                       |
| Lindane                | 58-89-9  | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>          | N                       | Class 4          |                        | -3.734                     | -5.738                       |
| Butyl benzyl phthalate | 85-68-7  | <chem>O=C(OCc(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -6.080                       |
| Butyl benzyl phthalate | 85-68-7  | <chem>O=C(OCc(cccc1)c1)c(c(ccc2)C(=O)OCCCC)c2</chem> |                         | Class 5          |                        | -5.063                     | -6.048                       |
| Fluoranthene           | 206-44-0 | <chem>c(c(ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>        |                         | Class 5          |                        | -5.072                     | -8.238                       |
| Fluoranthene           | 206-44-0 | <chem>c(c(ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>        |                         | Class 5          |                        | -5.072                     | -7.005                       |
| Fluoranthene           | 206-44-0 | <chem>c(c(ccc1)ccc2)(c1c(c3ccc4)c4)c23</chem>        |                         | Class 5          |                        | -5.072                     | -7.075                       |

**Table 9: Algae Chronic**

| A = 1.0 |    | A = 0.1 |    | A = 0.01 |    | A = 0.001 |     |
|---------|----|---------|----|----------|----|-----------|-----|
| X       | Y  | X       | Y  | X        | Y  | X         | Y   |
| 0       | 0  | 0       | -1 | 0        | -2 | 0         | -3  |
| -1      | -1 | -1      | -2 | -1       | -3 | -1        | -4  |
| -2      | -2 | -2      | -3 | -2       | -4 | -2        | -5  |
| -3      | -3 | -3      | -4 | -3       | -5 | -3        | -6  |
| -4      | -4 | -4      | -5 | -4       | -6 | -4        | -7  |
| -5      | -5 | -5      | -6 | -5       | -7 | -5        | -8  |
| -6      | -6 | -6      | -7 | -6       | -8 | -6        | -9  |
| -7      | -7 | -7      | -8 | -7       | -9 | -7        | -10 |

| Substance name          | CAS #      | SMILES              | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Algae log EC10/NOEC (mol/L) |
|-------------------------|------------|---------------------|-------------------------|------------------|------------------------|----------------------------|-----------------------------|
| 1-Hexanol               | 111-27-3   | CCCCCC              | O                       | Class 1          |                        | -1.239                     | -3.968                      |
| 1-Dodecanol             | 112-53-8   | CCCCCCCCCCCC        | O                       | Class 1          |                        | -4.985                     | -6.668                      |
| Isotridecanol           | 27458-92-0 | CCCCCCCCCCC(C)C     | O                       | Class 1          |                        | -5.302                     | -5.969                      |
| Benzyl alcohol          | 100-51-6   | OCc(cccc1)c1        | O                       | Class 1          |                        | -0.432                     | -2.543                      |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C        | O                       | Class 1          |                        | -0.324                     | -3.238                      |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C        | O                       | Class 1          |                        | -0.324                     | -2.273                      |
| Ethylbenzene            | 100-41-4   | c(cccc1)(c1)CC      |                         | Class 1          |                        | -2.798                     | -4.495                      |
| Chloroform              | 67-66-3    | ClC(Cl)Cl           | O                       | Class 1          |                        | -1.137                     | -4.521                      |
| 1,3-Dichlorobenzene     | 541-73-1   | C1=CC(=CC(=C1)Cl)Cl | O                       | Class 1          |                        | -3.070                     | -4.825                      |

| Substance name         | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Algae log EC10/NOEC (mol/L) |
|------------------------|----------|--|-------------------------|------------------|------------------------|----------------------------|-----------------------------|
| 1,4-Dichlorobenzene    | 106-46-7 | <chem>ClC1=CC=C(Cl)C=C1</chem>                 | O                       | Class 1          |                        | -2.969                     | -5.411                      |
| 1,2,3-Trichlorobenzene | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem>           | O                       | Class 1          |                        | -3.487                     | -5.916                      |
| 1,2,3-Trichlorobenzene | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem>           | O                       | Class 1          |                        | -3.487                     | -5.897                      |
| 1,1,2-Trichloroethane  | 79-00-5  | <chem>ClCC(Cl)Cl</chem>                        | O                       | Class 1          |                        | -1.482                     | -3.705                      |
| Chlorobenzene          | 108-90-7 | <chem>c1ccc(cc1)Cl</chem>                      | O                       | Class 1          |                        | -2.351                     | -4.219                      |
| n-Pentane              | 109-66-0 | <chem>CCCCC</chem>                             | O                       | Class 1          |                        | -3.273                     | -4.557                      |
| Cyclohexane            | 110-82-7 | <chem>C(CCCC1)C1</chem>                        | O                       | Class 1          |                        | -3.209                     | -4.952                      |
| Nitrobenzene           | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.811                     | -4.126                      |
| Nitrobenzene           | 98-95-3  | <chem>N(=O)(=O)c(cccc1)c1</chem>               | O                       | Class 2          | Class 1                | -1.812                     | -4.161                      |
| 2-Nitrotoluene         | 88-72-2  | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>            | O                       | Class 2          | Class 1                | -2.497                     | -4.218                      |
| 4-Chlorophenol         | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          |                        | -0.498                     | -5.604                      |
| Bisphenol-A            | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -5.225                      |
| Bisphenol-A            | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          |                        | -1.594                     | -5.756                      |
| Aniline                | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -3.106                      |
| Aniline                | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          |                        | -0.425                     | -3.288                      |
| 3,4-Dichloroaniline    | 95-76-1  | <chem>C1=CC(=C(C(=C1N)Cl)Cl)Cl</chem>          | N                       | Class 2          |                        | -1.986                     | -5.210                      |
| 3,4-Dichloroaniline    | 95-76-1  | <chem>C1=CC(=C(C(=C1N)Cl)Cl)Cl</chem>          | N                       | Class 2          |                        | -1.986                     | -4.829                      |
| Acetaldehyde           | 75-07-0  | <chem>O=CC</chem>                              | N                       | Class 3          |                        | 1.744                      | -2.644                      |



| Substance name | CAS #     | SMILES  | WoE Narc/non-narc (O/N) | Verhaar Modified | Updated in this report | log S <sub>L</sub> (mol/L) | Algae log EC10/NOEC (mol/L) |
|----------------|-----------|---|-------------------------|------------------|------------------------|----------------------------|-----------------------------|
| Acrolein       | 107-02-8  | <chem>O=CC=C</chem>                                     | N                       | Class 3          |                        | 0.570                      | -6.748                      |
| Heptanal       | 111-71-7  | <chem>O=CCCCC</chem>                                    | N                       | Class 3          |                        | -1.961                     | -5.094                      |
| Heptachlor     | 76-44-8   | <chem>ClC1C=CC2C1C3(Cl)C(=C(Cl)C2(Cl)C3(Cl)Cl)Cl</chem> | N                       | Class 4          |                        | -5.619                     | -7.122                      |
| Lindane        | 58-89-9   | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>             | N                       | Class 4          |                        | -3.734                     | -5.066                      |
| Lindane        | 58-89-9   | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>             | N                       | Class 4          |                        | -3.734                     | -5.233                      |
| Lindane        | 58-89-9   | <chem>C(C(C(C(C1Cl)Cl)Cl)Cl)(C1Cl)Cl</chem>             | N                       | Class 4          |                        | -3.734                     | -6.163                      |
| Atrazine       | 1912-24-9 | <chem>n(c(nc(n1)NC(C)C)NCC)c1Cl</chem>                  | N                       | Class 5          |                        | -2.321                     | -7.292                      |

Table 10: Polar  $K_{OW}$ s and Solubilities

|                | INPUT   | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT        | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |      |                               |                   |                    |              |     |                    | OUTPUT                 |                   |
|----------------|---------|-------------------------|------------------|------------------|----------------|--------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|------|-------------------------------|-------------------|--------------------|--------------|-----|--------------------|------------------------|-------------------|
| Substance name | CAS #   | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log $K_{OW}$ | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref  | Solid or Liquid at 25°C (S/L) | log $S_L$ (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to $S_L$ conversion | log $S_L$ (mol/L) |
| 3              | 98-95-3 | O                       | Class 2          |                  | 123.0          | 1.9          | 20                   | 20                 | 1900                          | 20                 | 5.26    | 15.4471545                       | ECHA | L                             | -1.81115151       | 3596.49123         | 278.26       |     | 1                  | 15.4472                | -1.81115151       |
| 2-Nitrotoluene | 88-72-2 | O                       | Class 2          |                  | 137.1          | 2.3          | 16                   | 20                 | 437                           | 20                 | -9.3    | 3.18652472                       |      | L                             | -2.49668271       | 17434.5283         | 263.7        |     | 1                  | 3.1865                 | -2.49668271       |
| 3-Nitrotoluene | 99-08-1 |                         | Class 2          |                  | 137.1          | 2.4          | 16                   | 20                 | 419                           | 20                 | 16.1    | 3.05616338                       | ECHA | L                             | -2.51482343       | 18178.2021         | 289.1        |     | 1                  | 3.0562                 | -2.51482343       |
| 3-Nitrotoluene | 99-08-1 |                         | Class 2          |                  | 137.1          | 2.4          | 16                   | 20                 | 419                           | 20                 | 16.1    | 3.05616338                       | ECHA | L                             | -2.51482343       | 18178.2021         | 289.1        |     | 1                  | 3.0562                 | -2.51482343       |
| 4-Nitrotoluene | 99-99-0 | O                       | Class 2          |                  | 137.1          | 2.4          | 13                   | 20                 | 345                           | 20                 | 44.5    | 2.51567741                       |      | S                             | -2.59934505       | 14161.5327         | 317.5        |     | 0.64126526         | 3.9230                 | -2.40638277       |

| Substance name       | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | OECD SIDS Ref          | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K)       | Kirk-Ref                   | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) |
|----------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|------------------------|-------------------------------|----------------------------|--------------------|--------------------|----------------------------|--------------------|---------------------------------|----------------------------|
|                      | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |                        | Vw=                           | 0.000018                   |                    | mol/m <sup>3</sup> |                            |                    |                                 | OUTPUT                     |
| 4-Nitrochlorobenzene | 100-00-5 | O                       | Class 2          |                  | 157.6          | 2.39                | 200                  | 20                 | 243                           | 20                 | 83      | 1.54226961                       | OECD SIDS dossier 2003 | S                             | -2.8118397                 | 9607.8915          | 356                | Dugal M; Kirk-Othmer, 2005 | 0.26672326         | 5.782284                        | -2.23790059                |
| Bisphenol-A          | 80-05-7  | N                       | Class 2          |                  | 228.3          | 3.4                 | 4.12E-07             |                    | 301                           |                    | 155     | 1.31844065                       | ECHA                   | S                             | -2.87993942                | 2178.97215         | 428                |                            | 0.05171122         | 25.4962                         | -1.59352418                |
| Aniline              | 62-53-3  | N                       | Class 2          |                  | 93.1           | 0.9                 | 40                   | 20                 | 35000                         | 20                 | -6.2    | 375.818748                       | ECHA                   | L                             | -0.42502156                | 147.825397         | 266.8              |                            | 1                  | 375.8187                        | -0.42502156                |
| Nitroaniline         | 99-09-2  | N                       | Class 2          |                  |                |                     |                      |                    |                               |                    |         |                                  |                        |                               |                            |                    |                    |                            |                    |                                 |                            |
| Phenol               | 108-95-2 | N                       | Class 2          |                  | 94.1           | 1.5                 | 20                   | 20                 | 70000                         |                    | 40.6    | 743.810435                       |                        | S                             | -0.12853773                | #DIV/0!            | 313.6              |                            | 0.70085822         | 1061.2852                       | 0.02583209                 |

| Substance name                                  | CAS #     | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class      | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref              | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Vw=         | Activity Coef (YW) | Tm (MP in K)                 | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |             |
|---|-----------|-------------------------|------------------|-----------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|------------------|-------------------------------|----------------------------|-------------|--------------------|------------------------------|-----|--------------------|---------------------------------|----------------------------|-------------|
| 4-Nitrophenol                                   | 41092.0   | N                       | Class 2          |                       |                |                     |                      |                    |                               |                    |         |                                  |                  |                               |                            |             | #DIV/0!            |                              |     |                    |                                 |                            |             |
| 2,4-Dinitrophenol                               | 51-28-5   | N                       | Class 2          |                       |                |                     |                      |                    |                               |                    |         |                                  |                  |                               |                            |             | #DIV/0!            |                              |     |                    |                                 |                            |             |
| 4,4'-Methylenedianiline                         | 101-77-9  | N                       | Class 2          |                       | 198.3          | 1.6                 | 0.00025              |                    | 1010                          |                    | 90      | 5.09329299                       |                  | S                             |                            | -2.29300134 | 2480.39712         | 363                          |     |                    | 0.22740101                      | 22.3978                    | -1.64979372 |
| 4-Chloro-o-cresol<br>(4-Chloro-2-methyl phenol) | 1570-64-5 | N                       | Class 2          |                       | 142.6          | 3.09                | 27                   | 20                 | 2300                          | 20                 | 48      | 16.1301634                       | Publication 2002 | S                             | -1.79236123                | 2039.35197  | 321                | Merck Index Publication 2002 |     | 0.59211145         | 27.241769                       | -1.56476469                |             |
| 3,4-Dichloroaniline                             | 95-76-1   | N                       | Class 2          | Anilines (unhindered) | 162.0          | 2.7                 | 0.294                |                    | 580                           | 20                 | 71.5    | 3.58024691                       | <sup>1</sup>     | S                             | -2.44608702                | 5378.65493  | 344.5              | Merck Index Publication 2001 |     | 0.34662443         | 10.328894                       | -1.98594619                |             |

<sup>1</sup> European Union Risk Assessment Report: 3,4-dichloroaniline (3,4-DCA), Vol. 65

| Substance name | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref      | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref      | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
|----------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|----------|-------------------------------|----------------------------|--------------------|--------------|----------|--------------------|---------------------------------|----------------------------|
| 2-Chlorophenol | 95-57-8  | N                       | Class 2          |                  | 128.55         | 2.15                | 139                  |                    | 28500                         | 20                 | 9.3     | 221.703617                       | Chlor RA | L                             | -0.65422722                | 250.584795         | 282.3        | Chlor RA | 1                  | 221.703617                      | -0.65422722                |
| 3-Chlorophenol | 108-43-0 | N                       | Class 2          |                  | 128.55         | 2.50                | 125                  |                    | 26000                         | 20                 | 33.5    | 202.255932                       | Euro RA  | L                             | -0.69409873                | 226.315585         | 306.5        | Euro RA  | 1                  | 245.478258                      | -0.60998697                |
| 4-Chlorophenol | 106-48-9 | N                       | Class 2          |                  | 128.55         | 2.39                | 51                   |                    | 27100                         | 20                 | 43      | 210.812913                       | Euro RA  | S                             | -0.67610279                | 174.868366         | 316          | Euro RA  | 0.66356118         | 317.699288                      | -0.49798376                |

MoA 1

| Substance name | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K)       | Ref | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) |
|----------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------------|-----|--------------------|---------------------------------|----------------------------|
|                | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               | Vw=                        | 0.000018           | mol/m <sup>3</sup> |     |                    |                                 | OUTPUT                     |
| 1-Hexanol      | 111-27-3 | O                       | Class 1          |                  | 102.2          |                     |                      |                    | 5900                          | 20                 | -47.5   | 57.7299413                       |     | L                             | -1.23859888                | 962.335217         | 225.5              |     | 1                  | 57.7299                         | -1.23859888                |
| 1-Heptanol     | 111-70-6 | O                       | Class 1          |                  | 116.2          |                     |                      |                    | 1313                          | 20                 | -34     | 11.2994836                       |     | L                             | -1.9469414                 | 4916.64551         | 239                |     | 1                  | 11.2995                         | -1.9469414                 |
| 1-Octanol      | 111-87-5 | O                       | Class 1          |                  | 130.2          |                     |                      |                    | 551                           |                    | -16.25  | 4.23195084                       |     | L                             | -2.37345939                | 13127.6467         | 256.75             |     | 1                  | 4.2320                          | -2.37345939                |
| 1-Nonanol      | 143-08   | O                       | Class 1          |                  | 144.3          |                     |                      |                    | 128                           | 20                 | -5      | 0.88704089                       |     | L                             | -3.05205636                | 62630.2083         | 268                |     | 1                  | 0.8870                          | -3.05205636                |
| 1-Decanol      | 112-30-1 | O                       | Class 1          |                  | 158.3          |                     |                      |                    | 39.5                          |                    | 6.4     | 0.24952622                       |     | L                             | -3.60288382                | 222644.163         | 279.4              |     | 1                  | 0.2495                          | -3.60288382                |

|                | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               |                            |     |                    |              |     | OUTPUT             |                                 |                            |
|----------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|-----|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|
| Substance name | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Vw= | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
| 1-Undecanol    | 112-42-5 | O                       | Class 1          |                  | 172.3          |                     |                      |                    | 8                             | 20                 | 14.3    | 0.04643064                       |     | L                             | -4.33319529                |     | 1196527.78         | 287.3        |     | 1                  | 0.0464                          | -4.33319529                |
| 1-Dodecanol    | 112-53-8 | O                       | Class 1          |                  | 186.3          |                     |                      |                    | 1.93                          | 20                 | 23.3    | 0.01035963                       |     | L                             | -4.98465555                |     | 5362694.3          | 296.3        |     | 1                  | 0.0104                          | -4.98465555                |
| 1-Tridecanol   | 112-70-9 | O                       | Class 1          |                  | 200.4          |                     |                      |                    | 0.38                          | 20                 | 30.6    | 0.00189621                       |     | L                             | -5.72211412                |     | 25788543           | 303.6        |     | 0.88020775         | 0.0022                          | -5.66669931                |
| 1-Tetradecanol | 112-72-1 | O                       | Class 1          |                  | 214.4          |                     |                      |                    | 0.191                         |                    | 39.5    | 0.00089086                       |     | S                             | -6.05019141                |     | 44816107.5         | 312.5        |     | 0.71864635         | 0.0012                          | -5.90670664                |
| 1-Pentadecanol | 629-76-5 | O                       | Class 1          |                  | 228.4          |                     |                      |                    | 0.102                         |                    | 44      | 0.00044658                       |     | S                             | -6.35009593                |     | 80687988.5         | 317          |     | 0.64861273         | 0.0007                          | -6.16208139                |

|                | INPUT      | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               | Vw=                        | 0.000018           | mol/m <sup>3</sup> |     | OUTPUT             |                                 |                            |  |
|----------------|------------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------------|-----|--------------------|---------------------------------|----------------------------|--|
| Substance name | CAS #      | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K)       | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |  |
| 1-Hexadecanol  | 36653-82-4 | O                       | Class 1          |                  | 242.4          |                     |                      |                    | 0.013                         |                    | 50      |                                  |     |                               |                            |                    |                    |     |                    |                                 |                            |  |
|                |            |                         |                  |                  |                |                     |                      |                    |                               |                    |         | 5.363E-05                        |     | S                             | -7.27058926                | 586042636          | 323                |     | 0.56573423         | 0.0001                          | -7.02320172                |  |
| 1-Octadecanol  | 112-92-5   | O                       | Class 1          |                  | 270.5          | 7.4                 |                      |                    | 0.0011                        |                    | 58      |                                  |     |                               |                            |                    |                    |     |                    |                                 |                            |  |
|                |            |                         |                  |                  |                |                     |                      |                    |                               |                    |         | 4.0665E-06                       |     | S                             | -8.39077458                | 6440958786         | 331                |     | 0.4714639          | 0.0000                          | -8.06422303                |  |
| Isotridecanol  | 27458-92-0 | O                       | Class 1          |                  | 200.37         | 5.19                |                      |                    | 1                             | 20                 | -78     |                                  |     |                               |                            |                    |                    |     |                    |                                 |                            |  |
|                |            |                         |                  |                  |                |                     |                      |                    |                               |                    |         | 0.00499077                       |     | L                             | -5.3018327                 | 11131666.7         | 195                |     | 1                  | 0.0050                          | -5.3018327                 |  |
| Cyclohexanol   | 108-93-0   | O                       | Class 1          |                  | 100.16         | 1.25                |                      |                    | 36000                         | 20                 | 24      |                                  |     |                               |                            |                    |                    |     |                    |                                 |                            |  |
|                |            |                         |                  |                  |                |                     |                      |                    |                               |                    |         | 359.42492                        |     | L                             | -0.44439182                | 154.567901         | 297                |     | 1                  | 359.4249                        | -0.44439182                |  |
| Benzyl alcohol | 100-51-6   | O                       | Class 1          |                  | 108.14         | 1.05                |                      |                    | 40000                         | 20                 | -15.4   |                                  |     |                               |                            |                    |                    |     |                    |                                 |                            |  |
|                |            |                         |                  |                  |                |                     |                      |                    |                               |                    |         | 369.890882                       |     | L                             | -0.43192637                | 150.194444         | 257.6              |     | 1                  | 369.8909                        | -0.43192637                |  |



| Substance name          | CAS #      | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub>    | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref  | Solid or Liquid at 25°C (S/L) | Vw= | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) | OUTPUT |
|-------------------------|------------|-------------------------|------------------|------------------|----------------|------------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|------|-------------------------------|-----|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|--------|
| Pentanol                | 94624-12-1 | O                       | Class 1          |                  | 88.15          | 1.29,<br>1.51,<br>1.35 |                      |                    | 22600                         |                    | -138    | 256.381168                       |      | L                             |     | 0.000018           | 135          |     | 1                  | 256.3812                        | -0.59111388                |        |
| tert-Butyl methyl ether | 1634-04-4  | O                       | Class 1          |                  | 88.2           | 1.1                    | 33000                |                    | 41850                         | 20                 | -108    | 474.758934                       | ECHA | L                             |     | 216.691249         | 165          |     | 1                  | 474.7589                        | -0.32352685                |        |
| PBDE                    | 32534-81-9 | O                       | Class 1          |                  | 564.7          | 6.5                    | very low!            |                    | 0.0024                        | 20                 | -7      | 4.2503E-06                       |      | L                             |     | 117.018452         | 266          |     | 1                  | 0.0000                          | -8.37157578                |        |
| Phenanthrene            | 85-01-8    |                         | Class 1          |                  | 178.2          | 4.4                    |                      |                    | 1.15                          |                    | 78      | 0.00645197                       |      | L                             |     | 1.3071E+10         | 351          |     | 1                  | 0.0216                          | -8.37157578                |        |
| 1-Methylphenanthrene    | 832-69-9   |                         | Class 1          |                  | 192.3          | 5.1                    |                      |                    | 0.269                         |                    | 123     | 0.00139915                       |      | S                             |     | 2573790.74         | 396          |     | 0.2989086          | 0.0131                          | -4.66584574                |        |
|                         |            |                         |                  |                  |                |                        |                      |                    |                               |                    |         | 0.00139915                       |      | S                             |     | 4257013.01         |              |     | 0.10721136         |                                 | -4.88437748                |        |

|                          | INPUT     | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               | Vw=                        | 0.000018           |              | OUTPUT |                    |                                 |                            |
|--------------------------|-----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------|--------|--------------------|---------------------------------|----------------------------|
| Substance name           | CAS #     | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref    | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) |
| 1,7-Dimethylphenanthrene | 483-87-4  |                         | Class 1          |                  | 206.3          | 5.4                 |                      |                    | 0.099                         |                    | 108.94  | 0.00047991                       |     | S                             | -6.31884298                | 17097871.8         | 381.94       |        | 0.14769697         | 0.0032                          | -5.48821456                |
| 2,7-Dimethylphenanthrene | 1576-69-8 |                         | Class 1          |                  | 206.3          | 5.4                 |                      |                    | 0.099                         |                    | 108.94  | 0.00047991                       |     | S                             | -6.31884298                | 17097871.8         | 381.94       |        | 0.14769697         | 0.0032                          | -5.48821456                |
| 2-Ethylphenanthrene      | 3674-74-6 |                         | Class 1          |                  | 206.3          | 5.4                 |                      |                    | 0.096                         |                    | 102.68  | 0.00046536                       |     | S                             | -6.33220694                | 20335359.7         | 375.68       |        | 0.17034031         | 0.0027                          | -5.56352436                |
| Perhydrophenanthrene     |           |                         | Class 1          |                  | 192.4          | 5.2                 |                      |                    | 0.041                         |                    | 20.83   | 0.00021315                       |     | S                             | -6.67130833                | 260636856          | 293.83       |        | 0.17034031         | 0.0002                          | -6.67130833                |
| Benzene                  | 71-43-2   |                         | Class 1          |                  | 78.11          | 2.1                 |                      |                    | 1790                          |                    | 80      | 22.9163999                       |     | S                             | -1.63985361                | 692.354475         | 353          |        | 0.2855929          | 80.2415                         | -1.09560101                |

|                        | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               | Vw=                        | 0.000018           | mol/m <sup>3</sup> |     | OUTPUT             |                                 |                            |
|------------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------------|-----|--------------------|---------------------------------|----------------------------|
| Substance name         | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K)       | Ref | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) |
| Ethylbenzene           | 100-41-4 |                         | Class 1          |                  | 106.2          | 3.2                 |                      |                    | 169                           |                    | -94.9   | 1.59178676                       |     | L                             | -2.79811511                | 34901.3807         | 178.1              |     | 1                  | 1.5918                          | -2.79811511                |
| m-Xylene               | 108-38-3 |                         | Class 1          |                  | 106.2          | 3.2                 |                      |                    | 161                           |                    | -47.8   | 1.5164359                        |     | L                             | -2.81917594                | 36635.6108         | 225.2              |     | 1                  | 1.5164                          | -2.81917594                |
| p-Xylene               | 106-423  |                         | Class 1          |                  | 106.2          | 3.1                 |                      |                    | 162                           |                    | 13.2    | 1.52585476                       |     | L                             | -2.8164868                 | 36409.465          | 286.2              |     | 1                  | 1.5259                          | -2.8164868                 |
| Isopropylbenzene       | 98-82-8  |                         | Class 1          |                  | 120.2          | 3.7                 |                      |                    | 61.3                          |                    | -96     | 0.50998336                       |     | L                             | -3.29244399                | 108936.016         | 177                |     | 1                  | 0.5100                          | -3.29244399                |
| 1,3,5-Trimethylbenzene | 108-67-8 |                         | Class 1          |                  | 120.2          | 3.4                 |                      |                    | 48.2                          |                    | -44.7   | 0.40099834                       |     | L                             | -3.39685743                | 138543.107         | 228.3              |     | 1                  | 0.4010                          | -3.39685743                |

| Substance name        | CAS #     | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Vw= | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) | OUTPUT |
|-----------------------|-----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|-----|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|--------|
| Biphenyl              | 92-52-2   |                         | Class 1          |                  | 154.2          | 4.0                 |                      |                    | 6.94                          |                    | 69      | 0.04500357                       |     | S                             | -4.34675307                |     | 452979.432         | 342          |     | 0.36694242         | 0.1226                          | -3.91135099                |        |
| Dibenzothiophene      | 132-65-0  |                         | Class 1          |                  | 184.3          | 4.2                 |                      |                    | 1.47                          |                    | 99      | 0.00797786                       |     | S                             | -5.09811373                |     | 1289953.62         | 372          |     | 0.18523919         | 0.0431                          | -4.3658466                 |        |
| Dimethyl DBT          | 1207-12-1 |                         | Class 1          |                  | 212.3          | 5.3                 |                      |                    | 0.09                          |                    | 117     | 0.00042391                       |     | S                             | -6.37272794                |     | 16109025.6         | 390          |     | 0.12291753         | 0.0034                          | -5.46234178                |        |
| Dimethyl phenanthrene | 1576-67-6 |                         | Class 1          |                  | 206.3          | 5.4                 |                      |                    | 0.07133                       |                    | 109     | 0.00034578                       |     | S                             | -6.46120595                |     | 23697978.3         | 382          |     | 0.14749519         | 0.0023                          | -5.6299838                 |        |
| Retene                | 483-65-8  |                         | Class 1          |                  | 234.3          | 6.4                 |                      |                    | 0.00848                       |                    | 117     | 3.6187E-05                       |     | S                             | -7.44145057                |     | 188708692          | 390          |     | 0.12291753         | 0.0003                          | -6.53106441                |        |

| Substance name | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Vw=      | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
|----------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|----------|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|
|                | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |     |                               |                            | 0.000018 |                    |              |     |                    |                                 | OUTPUT                     |
| Retene         | 483-65-8 |                         | Class 1          |                  | 234.3          | 6.4                 |                      |                    | 0.00848                       |                    | 117     | 3.6187E-05                       |     | S                             | -7.44145057                |          | 188708692          | 390          |     | 0.12291753         | 0.0003                          | -6.53106441                |
| 7,12-DMBA      | 57-97-6  |                         | Class 1          |                  | 256.4          | 6.6                 |                      |                    | 0.061                         |                    | 154     | 0.00023796                       |     | S                             | -6.62350349                |          | 12351259.6         | 427          |     | 0.052903           | 0.0045                          | -5.34698376                |
| Naphthalene    | 91-20-3  |                         | Class 1          |                  | 128.2          | 3.2                 |                      |                    | 31                            |                    | 45      | 0.2418474                        |     | S                             | -3.61645857                |          | 145638.445         | 318          |     | 0.63400103         | 0.3815                          | -3.41854854                |
| Acenaphthylene | 208-96-8 |                         | Class 1          |                  | 152.2          | 3.9                 |                      |                    | 16.1                          |                    | 92.5    | 0.10578187                       |     | S                             | -3.97558878                |          | 112815.793         | 365.5        |     | 0.21480957         | 0.4924                          | -3.30764241                |
| Fluorene       | 86-73-7  |                         | Class 1          |                  | 166.2          | 4.2                 |                      |                    | 1.69                          |                    | 114.8   | 0.01016725                       |     | S                             | -4.99279657                |          | 706167.958         | 387.8        |     | 0.12923613         | 0.0787                          | -4.10418051                |

|                    | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT      |                                  |     |                               | Vw=                        | 0.000018           |              | OUTPUT |                    |                                 |                            |
|--------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|------------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------|--------|--------------------|---------------------------------|----------------------------|
| Substance name     | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C)    | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref    | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) |
| Pyrene             | 129-00-0 |                         | Class 1          |                  | 202.3          | 4.9                 |                      |                    | 0.135                         |                    | 151.2      | 0.00066746                       |     | S                             | -6.17557623                | 4693441.44         | 424.2        |        | 0.05638813         | 0.0118                          | -4.92676391                |
| Pyrene             | 129-00-0 |                         | Class 1          |                  | 202.3          | 4.9                 |                      |                    | 0.135                         |                    | 151.2      | 0.00066746                       |     | S                             | -6.17557623                | 4693441.44         | 424.2        |        | 0.05638813         | 0.0118                          | -4.92676391                |
| Benz[a]anthracene  | 56-55-3  |                         | Class 1          |                  | 228.3          | 5.8                 |                      |                    | 0.0094                        |                    | 84         | 4.1174E-05                       |     | S                             | -7.38537806                | 351779840          | 357          |        | 0.26071463         | 0.0002                          | -6.80154345                |
| Benzo[a]pyrene     | 50-32-8  |                         | Class 1          |                  | 252.3          | 6.1                 |                      |                    | 0.00162                       |                    | 6.4204E-06 | 6.4204E-06                       |     | S                             | -8.19243666                | 325245951          | 442          |        | 0.03758787         | 0.0002                          | -6.7674844                 |
| Benzo[ghi]perylene | 191-24-2 |                         | Class 1          |                  | 276.3          | 6.6                 |                      |                    | 0.00026                       |                    | 278        | 9.4087E-07                       |     | S                             | -9.02647041                | 185197853          | 551          |        | 0.00313645         | 0.0003                          | -6.52290845                |

| Substance name       | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref  | Solid or Liquid at 25°C (S/L) | Vw= | Activity Coef (YW) | Tm (MP in K) | Ref              | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) | OUTPUT      |  |
|----------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|--|-------------------------------|-----|--------------------|--------------|------------------|--------------------|---------------------------------|----------------------------|-------------|--|
| Benzo[k]fluoranthene | 207-08-9 |                         | Class 1          |                  | 252.32         | 6.11                |                      |                    | 0.0008                        |                    | 169     | 3.1706E-06                       |  | S                             |     | 0.000018           | 442          |                  | 0.03758787         | 0.0001                          | -7.07390943                |             |  |
| Indeno(123cd)pyrene  | 193-39-5 |                         | Class 1          |                  | 276.3          | 6.7                 |                      |                    | 0.00019                       |                    | 163.6   | 6.8756E-07                       |  | S                             |     | 658623052          | 442          |                  | 0.04250925         | 0.0000                          | -7.7911736                 |             |  |
| Dibenz[ah]anthracene | 53-70-3  |                         | Class 1          |                  | 278.4          | 6.8                 |                      |                    | 0.00249                       |                    | 269.5   | 8.9453E-06                       |  | S                             |     | 23642031.4         | 542.5        |                  | 0.00380671         | 0.0023                          | -5.62895729                |             |  |
| Dichloromethane      | 75-09-2  | O                       | Class 1          |                  | 84.926         | 1.25                | 58400                | 20                 | 13000                         | 25                 | -95     | 153.074441                       | Horvath AL: Halogenated Hydrocarbons: Solubility-Miscibility With Water NY: Marcel Dekker (1982) | S                             |     | 23642031.4         | 542.5        |                  | 0.00380671         | 0.0023                          | -5.62895729                |             |  |
| Chloroform           | 67-66-3  | O                       | Class 1          |                  | 119.368        | 1.97                | 21100                | 20                 | 8700                          | 23                 | -63.5   | 72.883855                        | Study, 1995  | L                             |     | 762.247765         | 209.5        | Merck Index 1976 | 1                  | 153.074441                      | 0.0023                     | -1.13736866 |  |

|                      | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   | INPUT                            | OUTPUT                     |                    |              |  |                    |                                 |                            |
|----------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|----------------------------|--------------------|--------------|--|--------------------|---------------------------------|----------------------------|
| Substance name       | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref  | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
| Carbon tetrachloride | 56-23-5  | O                       | Class 1          |                  | 153.81         | 2.83                | 12000                | 20                 | 846                           |                    | -23     | 5.50029257                       | -2.25961421                | 10100.4728         | 250          | Dreisbach, R.<br>R.;Martin, R.<br>A., Ind. Eng.<br>Chem., 41 (12),   | 1                  | 5.500293                        | -2.25961421                |
| Trichloroethylene    | 79-01-6  | O                       | Class 1          |                  | 131.5          | 2.53                | 9900                 | 20                 | 1100                          | 20                 | -85     | 8.36501901                       | -2.07753307                | 6641.41414         | 188          | Merck Index<br>1989  | 1                  | 8.365019                        | -2.07753307                |
| Tetrachlorethylene   | 127-18-4 | O                       | Class 1          |                  | 165.9          | 2.53                | 2500                 |                    | 150                           |                    | -22     | 0.90415913                       | -3.04375513                | 61444.4444         | 251          | Merck Index<br>1989  | 1                  | 0.904159                        | -3.04375513                |
| Chlorobutane         | 109-69-3 | O                       | Class 1          |                  | 92.6           | 2.66                | 12060                | 20                 | 110                           | 20                 | -123    | 1.18841832                       | -2.92503066                | 46747.4747         | 150          | Review article<br>1929   | 1                  | 1.188418                        | -2.92503066                |
| 1,2-Dichloroethane   | 107-06-2 | O                       | Class 1          |                  | 99.0           | 1.45                | 10247                |                    | 7900                          |                    | -36     | 79.8366885                       | -1.09779749                | 695.864979         | 237          | Banerjee, S.;<br>Yalkowsky, S.H.;<br>Valvani, S. C. <i>Environ.<br/>Sci. Technol.</i> 14, 1227 -<br>1229, 1980 | 1                  | 79.836688                       | -1.09779749                |



| Substance name            | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref  | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K)       | Ref  | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
|---------------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|--|-------------------------------|----------------------------|--------------------|--------------------|--|--------------------|---------------------------------|----------------------------|
|                           | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |  |                               | Vw=                        | 0.000018           | mol/m <sup>3</sup> |  |                    |                                 | OUTPUT                     |
| 1,2,4-Trichlorobenzene    | 120-82-1 | O                       | Class 1          |                  | 181.5          | 4.05                | 26                   | 20                 | 37.8                          |                    | 17      | 0.20826446                       | Lide DR (ed.) CRC Handbook of Chemistry and Physics (82nd) 2001-2002 | L                             | -3.68138483                | 266754.85          | 290                | Ullmann's Encyclopedia of Industrial Chemistry, Wiley-VCH Verlag GmbH & Co. KGaA, 2006 | 1                  | 0.208264                        | -3.68138483                |
| 1,3-Dichlorobenzene       | 541-73-1 | O                       | Class 1          |                  | 147.0          | 3.44                | 188                  | 20                 | 125                           |                    | -24.76  | 0.85034014                       | HSDB handbook 2009   | L                             | -3.07040732                | 65333.3333         | 248.24             | Merck Index 2006   | 1                  | 0.850340                        | -3.07040732                |
| 1,4-Dichlorobenzene       | 106-46-7 | O                       | Class 1          |                  | 147.0          | 3.37                | 53                   |                    | 82.9                          |                    | 53.3    | 0.56394558                       | Lide DR (ed.) CRC Handbook of Chemistry and Physics (82nd) 2001-2002 | S                             | -3.2487628                 | 51694.888          | 326.3              | Merck Index 2001   | 1                  | 1.074682                        | -2.9687201                 |
| 1,2-Dichlorobenzene       | 95-50-1  | O                       | Class 1          |                  | 147.0          | 3.38                | 208                  | 20                 | 155.8                         |                    | -17.03  | 1.05986395                       | Banerjee S. 1984. Environ Sci. Technol. 16: 624-627                  | L                             | -2.97474988                | 52417.6294         | 255.97             | Merck Index 2001   | 1                  | 1.059864                        | -2.97474988                |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | O                       | Class 1          |                  | 167.9          | 2.39                | 650                  | 20                 | 2900                          | 20                 | -44     | 17.277331                        | WHO CICAD3   | L                             | -1.76252335                | 3215.51724         | 229                |  | 1                  | 17.277331                       | -1.76252335                |

|                        | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |   | Vw=                           | 0.000018                   | mol/m <sup>3</sup> | OUTPUT       |   |                    |                                 |                            |
|------------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|---|-------------------------------|----------------------------|--------------------|--------------|---|--------------------|---------------------------------|----------------------------|
| Substance name         | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref   | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref   | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |
| 1,2,3-Trichlorobenzene | 87-61-6  | O                       | Class 1          |                  | 181.5          | 4.139               | 27.93                |                    | 30.9                          |                    | 53.5    | 0.17029485                       | CRC Handbook of Chemistry and Physics, 82 ed.         | S                             | -3.76879849                | 170413.575         | 326.5        | CRC Handbook of Chemistry and Physics, 76 ed. | 0.52236997         | 0.326004                        | -3.48677669                |
| 1,1,1-Trichloroethane  | 71-55-6  | O                       | Class 1          |                  | 133.4          | 2.46                | 15500                | 20                 | 1250                          | 23                 | -33     | 9.37031484                       | Broholm K; Feenstra S, 1995                           | L                             | -2.02824582                | 5928.88889         | 240          | ATSDR Toxicological profile for 1,1,1-        | 1                  | 9.370315                        | -2.02824582                |
| 1,1,2-Trichloroethane  | 79-00-5  | O                       | Class 1          |                  | 133.4          | 1.89                | 2300                 | 20                 | 4400                          | 20                 | -36     | 32.9835082                       | Handbook  | L                             | -1.48170315                | 1684.34343         | 237          | Merck Index 1986                              | 1                  | 32.983508                       | -1.48170315                |
| Chlorobenzene          | 108-90-7 | O                       | Class 1          |                  | 112.6          | 2.84                | 11700                | 20                 | 502                           | 20                 | -46     | 4.45984364                       | Banerjee S et al 1984. Environ Sci Technol 18:587-591 | L                             | -2.35068037                | 12456.8393         | 227          | Thieme Römpch Online 2008                     | 1                  | 4.459844                        | -2.35068037                |
| n-Pentane              | 109-66-0 | O                       | Class 1          |                  | 72.15          | 3.45                | 68400                |                    | 38.5                          | 20                 | -106.92 | 0.53361053                       | ESR RAR 2003  | L                             | -3.27277561                | 104112.554         | 166.08       |   | 1                  | 0.533611                        | -3.27277561                |

| Substance name | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref                     | Solid or Liquid at 25°C (S/L) | log S <sub>L</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) |        |
|----------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-------------------------|-------------------------------|----------------------------|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|--------|
|                | INPUT    | INPUT                   | INPUT            | INPUT            | INPUT          | INPUT               | INPUT                | INPUT              | INPUT                         | INPUT              | INPUT   |                                  |                         |                               |                            | Vw=                |              |     |                    |                                 |                            | OUTPUT |
|                |          |                         |                  |                  |                |                     |                      |                    |                               |                    |         |                                  |                         |                               |                            | 0.000018           |              |     |                    |                                 |                            |        |
| n-Hexane       | 110-54-3 | O                       | Class 1          |                  | 86.18          | 4.11                | 20200                |                    | 9.5                           |                    | -93.84  | 0.11023439                       | EHC Monograph 122, 1991 | L                             | -3.95768288                | 503976.608         | 179.16       |     | 1                  | 0.110234                        | -3.95768288                |        |
| n-Heptane      | 142-82-5 | O                       | Class 1          |                  | 100.2          | 4.64                | 6110                 |                    | 3.4                           |                    | -90.6   | 0.03393214                       | PhysProp Database       | L                             | -4.4693888                 | 1637254.9          | 182.4        |     | 1                  | 0.033932                        | -4.4693888                 |        |
| n-Octane       | 111-65-9 | O                       | Class 1          |                  | 114.23         | 5.15                | 1800                 |                    | 0.66                          |                    | -56.8   | 0.00577782                       | PhysProp Database       | L                             | -5.23823624                | 9615319.87         | 216.2        |     | 1                  | 0.005778                        | -5.23823624                |        |
| n-Nonane       | 111-84-2 | O                       | Class 1          |                  | 128.26         | 5.65                | 571                  |                    | 0.22                          |                    | -53.5   | 0.00171527                       | TPHC Vol 3              | L                             | -5.76566855                | 32388888.9         | 219.5        |     | 1                  | 0.001715                        | -5.76566855                |        |
| n-Decane       | 124-18-5 | O                       | Class 1          |                  | 142.28         | 6.25                | 175                  |                    | 0.052                         |                    | -29.7   | 0.00036548                       | PhysProp Database       | L                             | -6.43714051                | 152008547          | 243.3        |     | 1                  | 0.000365                        | -6.43714051                |        |

| Substance name | CAS #     | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref                                      | Solid or Liquid at 25°C (S/L) | Vw=         | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) | OUTPUT |
|----------------|-----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|--|-------------------------------|-------------|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|--------|
| n-Undecane     | 1120-21-4 | O                       | Class 1          |                  | 156.31         | 6.86                | 52.2                 |                    | 0.0044                        |                    | -25.6   | 2.8149E-05                       | PhysProp Database                        | L                             | -7.55053409 | 1973611111         | 247.4        |     | 1                  | 0.000028                        | -7.55053409                |        |
| n-Dodecane     | 112-40-3  | O                       | Class 1          |                  | 170.34         | 7.41                | 15.4                 |                    | 0.0037                        |                    | -9.6    | 2.1721E-05                       | PhysProp Database                        | L                             | -7.66311492 | 2557657658         | 263.4        |     | 1                  | 0.000022                        | -7.66311492                |        |
| n-Tridecane    | 629-50-5  | O                       | Class 1          |                  | 184.36         | 7.96                | 4.6                  |                    | 5.56E-04                      |                    | -5.3    | 3.02E-06                         | ETC, 24, 9, 2382 (2005)                  | L                             | -8.52059191 | 1.8421E+10         | 267.7        |     | 1                  | 0.000003                        | -8.52059191                |        |
| 2-Methylbutane | 78-78-4   | O                       | Class 1          |                  | 72.15          | 2.72                | 91800                |                    | 47.8                          |                    | -159.9  | 6.63E-01                         | OECD SIDS C5 Aliphatics (McAuliffe 1966) | L                             | -3.17880844 | 83856.3459         | 113.1        |     | 1                  | 0.662509                        | -3.17880844                |        |
| Cyclopentane   | 287-92-3  | O                       | Class 1          |                  | 70.134         | 2.76                | 36230                |                    | 156                           |                    | -93.9   | 2.22431346                       | ECHA Database                            | L                             | -2.65280401 | 24976.4957         | 179.1        |     | 1                  | 2.224313                        | -2.65280401                |        |

| Substance name | CAS #     | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref                     | Solid or Liquid at 25°C (S/L) | Vw= | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>L</sub> conversion | log S <sub>L</sub> (mol/L) | OUTPUT      |
|----------------|-----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-------------------------|-------------------------------|-----|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|-------------|
| Cyclohexane    | 110-82-7  | O                       | Class 1          |                  | 84.1608        | 3.38                | 12400                |                    | 52                            |                    | 6.5     | 0.61786485                       | ECHA Database           | L                             |     | 89915.3846         | 279.5        |     | 1                  | 0.617865                        | -3.20910651                | -3.20910651 |
| Hex-1-ene      | 592-41-6  | O                       | Class 1          |                  | 84.16          | 3.39                | 24800                |                    | 47                            | 20                 | -139.8  | 0.55846008                       | ECHA Database           | L                             |     | 99479.9054         | 133.2        |     | 1                  | 0.558460                        | -3.25300787                | -3.25300787 |
| Dec-1-ene      | 872-05-9  | O                       | Class 1          |                  | 140.27         | 5.62                | 210                  |                    | 0.4                           |                    | -66.3   | 0.00285164                       | ETC, 24, 9, 2382 (2005) | L                             |     | 19481944.4         | 206.7        |     | 1                  | 0.002852                        | -5.54490481                | -5.54490481 |
| Dodec-1-ene    | 112-41-4  | O                       | Class 1          |                  | 168.32         | 6.7                 | 20                   |                    | 0.032                         |                    | -35.2   | 0.00019011                       | ETC, 24, 9, 2382 (2005) | L                             |     | 292222222          | 237.8        |     | 1                  | 0.000190                        | -6.72098574                | -6.72098574 |
| Tetradec-1-ene | 1120-36-1 | O                       | Class 1          |                  | 196.38         | 7.08                | 1.65                 |                    | 0.0135                        |                    | -12     | 6.8744E-05                       | ECHA Database           | L                             |     | 808148148          | 261          |     | 1                  | 0.000069                        | -7.16276349                | -7.16276349 |

| Substance name        | CAS #    | WoE Narc/non-narc (O/N) | Verhaar Modified | ECOSA 1.11 Class | mol wt (g/mol) | log K <sub>ow</sub> | Vapour pressure (Pa) | At T°C (if not 25) | Water sol (g/m <sup>3</sup> ) | At T°C (if not 25) | Tm (°C) | Solubility (mol/m <sup>3</sup> ) | Ref | Solid or Liquid at 25°C (S/L) | log S <sub>l</sub> (mol/L) | Activity Coef (YW) | Tm (MP in K) | Ref | Fugacity ratio (F) | SS to S <sub>l</sub> conversion | log S <sub>l</sub> (mol/L) | OUTPUT   |
|-----------------------|----------|-------------------------|------------------|------------------|----------------|---------------------|----------------------|--------------------|-------------------------------|--------------------|---------|----------------------------------|-----|-------------------------------|----------------------------|--------------------|--------------|-----|--------------------|---------------------------------|----------------------------|----------|
| 2-Ethoxyethyl acetate | 111-15-9 | N                       | Class 1          |                  | 132.2          | 0.6                 | 326                  |                    | 229000                        | 20                 | -61     | 1732.74818                       |     | L                             | 0.23873545                 | 32.0621058         | 212          |     | 1                  | 1732.7482                       | 0.23873545                 | 0.000018 |

**Table 11:  $K_{OW}$  v  $LC50$** 

| Substance name          | CAS #      | SMILES           | WoE Narc/non-narc (O/N) | Verhaar Modified | log $S_L$ (mol/L) | Fish log L(E)C50 (mol/L) | log $K_{OW}$ |
|-------------------------|------------|------------------|-------------------------|------------------|-------------------|--------------------------|--------------|
| 1-Hexanol               | 111-27-3   | OCCCCCC          | O                       | Class 1          | -1.239            | -3.023                   |              |
| 1-Heptanol              | 111-70-6   | OCCCCCCC         | O                       | Class 1          | -1.947            | -3.485                   |              |
| 1-Octanol               | 111-87-5   | OCCCCCCCC        | O                       | Class 1          | -2.373            | -4.001                   |              |
| 1-Nonanol               | 143-08     | OCCCCCCCCC       | O                       | Class 1          | -3.052            | -4.419                   |              |
| 1-Decanol               | 112-30-1   | OCCCCCCCCC       | O                       | Class 1          | -3.603            | -4.838                   |              |
| 1-Undecanol             | 112-42-5   | OCCCCCCCCCCC     | O                       | Class 1          | -4.333            | -5.236                   |              |
| 1-Dodecanol             | 112-53-8   | OCCCCCCCCCCC     | O                       | Class 1          | -4.985            | -5.270                   |              |
| Isotridecanol           | 27458-92-0 | OCCCCCCCCCCC(C)C | O                       | Class 1          | -5.302            | -5.561                   | 5.19         |
| Cyclohexanol            | 108-93-0   | OC(CCCC1)C1      | O                       | Class 1          | -0.444            | -2.153                   | 1.25         |
| Benzyl alcohol          | 100-51-6   | OCC(cccc1)c1     | O                       | Class 1          | -0.432            | -2.371                   | 1.05         |
| Pentanol                | 94624-12-1 | CC(CCC)O         | O                       | Class 1          | -0.591            | -3.174                   | 1.35         |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | O                       | Class 1          | -0.324            | -2.118                   | 1.1          |
| tert-Butyl methyl ether | 1634-04-4  | O(C(C)(C)C)C     | O                       | Class 1          | -0.324            | -2.186                   | 1.1          |
| Dichloromethane         | 75-09-2    | ClCCl            | O                       | Class 1          | -0.815            | -2.643                   | 1.25         |

| Substance name       | CAS #   | SMILES        | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|----------------------|---------|---------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| Dichloromethane      | 75-09-2 | ClCCl         | O                       | Class 1          | -0.815                     | -2.933                   | 1.25                |
| Dichloromethane      | 75-09-2 | ClCCl         | O                       | Class 1          | -0.815                     | -2.228                   | 1.25                |
| Dichloromethane      | 75-09-2 | ClCCl         | O                       | Class 1          | -0.815                     | -2.411                   | 1.25                |
| Dichloromethane      | 75-09-2 | ClCCl         | O                       | Class 1          | -0.815                     | -2.587                   | 1.25                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -3.817                   | 1.97                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -3.064                   | 1.97                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -3.369                   | 1.97                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -3.202                   | 1.97                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -3.227                   | 1.97                |
| Chloroform           | 67-66-3 | ClC(Cl)Cl     | O                       | Class 1          | -1.137                     | -2.994                   | 1.97                |
| Carbon tetrachloride | 56-23-5 | ClC(Cl)(Cl)Cl | O                       | Class 1          | -2.260                     | -3.801                   | 2.83                |
| Trichloroethylene    | 79-01-6 | ClC=C(Cl)Cl   | O                       | Class 1          | -2.078                     | -3.915                   | 2.53                |
| Trichloroethylene    | 79-01-6 | ClC=C(Cl)Cl   | O                       | Class 1          | -2.078                     | -3.667                   | 2.53                |
| Trichloroethylene    | 79-01-6 | ClC=C(Cl)Cl   | O                       | Class 1          | -2.078                     | -3.380                   | 2.53                |
| Trichloroethylene    | 79-01-6 | ClC=C(Cl)Cl   | O                       | Class 1          | -2.078                     | -3.403                   | 2.53                |
| Trichloroethylene    | 79-01-6 | ClC=C(Cl)Cl   | O                       | Class 1          | -2.078                     | -3.509                   | 2.53                |



| Substance name     | CAS #    | SMILES                         | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|--------------------|----------|--------------------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| Trichloroethylene  | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>       | O                       | Class 1          | -2.078                     | -3.474                   | 2.53                |
| Trichloroethylene  | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>       | O                       | Class 1          | -2.078                     | -3.294                   | 2.53                |
| Trichloroethylene  | 79-01-6  | <chem>C1C=C(Cl)Cl</chem>       | O                       | Class 1          | -2.078                     | -3.341                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -4.521                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -4.521                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -4.093                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -4.106                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -3.311                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -3.757                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -3.843                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -4.296                   | 2.53                |
| Tetrachlorethylene | 127-18-4 | <chem>Cl/C(Cl)=C(/Cl)Cl</chem> | O                       | Class 1          | -3.044                     | -3.955                   | 2.53                |
| Chlorobutane       | 109-69-3 | <chem>ClCCCC</chem>            | O                       | Class 1          | -2.925                     | -3.113                   | 2.66                |
| 1,2-Dichloroethane | 107-06-2 | <chem>ClCCCl</chem>            | O                       | Class 1          | -1.098                     | -2.862                   | 1.45                |
| 1,2-Dichloroethane | 107-06-2 | <chem>ClCCCl</chem>            | O                       | Class 1          | -1.098                     | -2.362                   | 1.45                |
| 1,2-Dichloroethane | 107-06-2 | <chem>ClCCCl</chem>            | O                       | Class 1          | -1.098                     | -2.935                   | 1.45                |

| Substance name         | CAS #    | SMILES              | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|------------------------|----------|---------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| 1,2-Dichloroethane     | 107-06-2 | ClCCCl              | O                       | Class 1          | -1.098                     | -2.924                   | 1.45                |
| 1,2,4-Trichlorobenzene | 120-82-1 | ClC1CCC(Cl)C(Cl)C1  | O                       | Class 1          | -3.681                     | -4.879                   | 4.05                |
| 1,3-Dichlorobenzene    | 541-73-1 | C1=CC(=CC(=C1)Cl)Cl | O                       | Class 1          | -3.070                     | -4.281                   | 3.44                |
| 1,3-Dichlorobenzene    | 541-73-1 | C1=CC(=CC(=C1)Cl)Cl | O                       | Class 1          | -3.070                     | -4.468                   | 3.44                |
| 1,3-Dichlorobenzene    | 541-73-1 | C1=CC(=CC(=C1)Cl)Cl | O                       | Class 1          | -3.070                     | -4.207                   | 3.44                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -5.118                   | 3.44                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -5.074                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -5.031                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.611                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.015                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.099                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.955                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.544                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.419                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.298                   | 3.37                |
| 1,4-Dichlorobenzene    | 106-46-7 | ClC1=CC=C(Cl)C=C1   | O                       | Class 1          | -2.969                     | -4.845                   | 3.37                |

| Substance name            | CAS #    | SMILES                               | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|---------------------------|----------|--------------------------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>C1=CC=C(Cl)C=C1</chem>         | O                       | Class 1          | -2.969                     | -4.514                   | 3.37                |
| 1,4-Dichlorobenzene       | 106-46-7 | <chem>C1=CC=C(Cl)C=C1</chem>         | O                       | Class 1          | -2.969                     | -4.845                   | 3.37                |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          | -2.975                     | -4.985                   | 3.38                |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          | -2.975                     | -4.969                   | 3.38                |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          | -2.975                     | -4.960                   | 3.38                |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          | -2.975                     | -4.977                   | 3.38                |
| 1,2-Dichlorobenzene       | 95-50-1  | <chem>c1ccc(c(c1)Cl)Cl</chem>        | O                       | Class 1          | -2.975                     | -4.451                   | 3.38                |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | O                       | Class 1          | -1.763                     | -3.917                   | 2.39                |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | O                       | Class 1          | -1.763                     | -3.915                   | 2.39                |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | O                       | Class 1          | -1.763                     | -3.958                   | 2.39                |
| 1,1,2,2-Tetrachloroethane | 79-34-5  | <chem>ClC(Cl)C(Cl)Cl</chem>          | O                       | Class 1          | -1.763                     | -3.797                   | 2.39                |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          | -3.487                     | -5.715                   | 4.139               |
| 1,2,3-Trichlorobenzene    | 87-61-6  | <chem>C1=CC(=C(C(=C1)Cl)Cl)Cl</chem> | O                       | Class 1          | -3.487                     | -4.754                   | 4.139               |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | O                       | Class 1          | -2.028                     | -3.404                   | 2.46                |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | O                       | Class 1          | -2.028                     | -4.080                   | 2.46                |
| 1,1,1-Trichloroethane     | 71-55-6  | <chem>C(Cl)(Cl)(Cl)C</chem>          | O                       | Class 1          | -2.028                     | -3.448                   | 2.46                |

| Substance name        | CAS #    | SMILES            | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|-----------------------|----------|-------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.513                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.268                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.274                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.377                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.607                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -2.955                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.499                   | 2.46                |
| 1,1,1-Trichloroethane | 71-55-6  | C(Cl)(Cl)(Cl)C    | O                       | Class 1          | -2.028                     | -3.666                   | 2.46                |
| 1,1,2-Trichloroethane | 79-00-5  | ClCC(Cl)Cl        | O                       | Class 1          | -1.482                     | -3.523                   | 1.89                |
| Chlorobenzene         | 108-90-7 | c1ccc(cc1)Cl      | O                       | Class 1          | -2.351                     | -4.398                   | 2.84                |
| n-Pentane             | 109-66-0 | CCCCC             | O                       | Class 1          | -3.273                     | -4.229                   | 3.45                |
| Cyclohexane           | 110-82-7 | C(CCCC1)C1        | O                       | Class 1          | -3.209                     | -4.269                   | 3.38                |
| Hex-1-ene             | 592-41-6 | CCCC=C            | O                       | Class 1          | -3.253                     | -4.177                   | 3.39                |
| 2-Ethoxyethyl acetate | 111-15-9 | O=C(OCCOCC)C      | N                       | Class 1          | 0.239                      | -3.519                   | 0.6                 |
| 2-Ethoxyethyl acetate | 111-15-9 | O=C(OCCOCC)C      | N                       | Class 1          | 0.239                      | -2.827                   | 0.6                 |
| Nitrobenzene          | 98-95-3  | N(=O)(=O)c1ccccc1 | O                       | Class 2          | -1.811                     | -3.126                   | 1.9                 |

| Substance name                               | CAS #     | SMILES                                   | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|--|-----------|--|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| Nitrobenzene                                 | 98-95-3   | <chem>N(=O)(=O)c(cccc1)c1</chem>         | O                       | Class 2          | -1.811                     | -3.319                   | 1.9                 |
| Nitrobenzene                                 | 98-95-3   | <chem>N(=O)(=O)c(cccc1)c1</chem>         | O                       | Class 2          | -1.812                     | -3.015                   | 1.9                 |
| 2-Nitrotoluene                               | 88-72-2   | <chem>N(=O)(=O)c(c(ccc1)C)c1</chem>      | O                       | Class 2          | -2.497                     | -3.387                   | 2.3                 |
| 3-Nitrotoluene                               | 99-08-1   | <chem>N(=O)(=O)c(cccc1C)c1</chem>        |                         | Class 2          | -2.515                     | -3.630                   | 2.4                 |
| 3-Nitrotoluene                               | 99-08-1   | <chem>N(=O)(=O)c(cccc1C)c1</chem>        |                         | Class 2          | -2.515                     | -4.268                   | 2.4                 |
| 4-Nitrotoluene                               | 99-99-0   | <chem>N(=O)(=O)c(ccc(c1)C)c1</chem>      | O                       | Class 2          | -2.406                     | -3.305                   | 2.4                 |
| 4-Nitrochlorobenzene                         | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          | -2.238                     | -4.021                   | 2.39                |
| 4-Nitrochlorobenzene                         | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          | -2.238                     | -4.084                   | 2.39                |
| 4-Nitrochlorobenzene                         | 100-00-5  | <chem>[O-][N+](=O)C1=CC=C(Cl)C=C1</chem> | O                       | Class 2          | -2.238                     | -3.791                   | 2.39                |
| 4-Chloro-o-cresol (4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          | -1.565                     | -4.792                   | 3.09                |
| 4-Chloro-o-cresol (4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          | -1.565                     | -4.355                   | 3.09                |
| 4-Chloro-o-cresol (4-Chloro-2-methyl phenol) | 1570-64-5 | <chem>CC1=C(C=CC(=C1)Cl)O</chem>         | N                       | Class 2          | -1.565                     | -4.677                   | 3.09                |
| 3,4-Dichloroaniline                          | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          | -1.986                     | -4.922                   | 2.7                 |
| 3,4-Dichloroaniline                          | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          | -1.986                     | -4.665                   | 2.7                 |
| 3,4-Dichloroaniline                          | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          | -1.986                     | -4.365                   | 2.7                 |
| 3,4-Dichloroaniline                          | 95-76-1   | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem>        | N                       | Class 2          | -1.986                     | -4.086                   | 2.7                 |

| Substance name      | CAS #   | SMILES                            | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|---------------------|---------|-----------------------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.149                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.096                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.303                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.547                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.329                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.280                   | 2.7                 |
| 3,4-Dichloroaniline | 95-76-1 | <chem>C1=CC(=C(C=C1N)Cl)Cl</chem> | N                       | Class 2          | -1.986                     | -4.829                   | 2.7                 |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.144                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.135                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -3.963                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -3.969                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.290                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.109                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.017                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -3.804                   | 2.15                |
| 2-Chlorophenol      | 95-57-8 | <chem>ClC1=C(O)C=CC=C1</chem>     | N                       | Class 2          | -0.654                     | -4.045                   | 2.15                |

| Substance name | CAS #    | SMILES   | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|----------------|----------|--|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| 2-Chlorophenol | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>                   | N                       | Class 2          | -0.654                     | -3.948                   | 2.15                |
| 2-Chlorophenol | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>                   | N                       | Class 2          | -0.654                     | -4.310                   | 2.15                |
| 2-Chlorophenol | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>                   | N                       | Class 2          | -0.654                     | -4.290                   | 2.15                |
| 2-Chlorophenol | 95-57-8  | <chem>C1C=C(O)C=CC=C1</chem>                   | N                       | Class 2          | -0.654                     | -4.265                   | 2.15                |
| 3-Chlorophenol | 108-43-0 | <chem>C1C=CC(O)=CC=C1</chem>                   | N                       | Class 2          | -0.610                     | -4.508                   | 2.50                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.529                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.180                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.529                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.828                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.361                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.410                   | 2.39                |
| 4-Chlorophenol | 106-48-9 | <chem>OC1=CC=C(Cl)C=C1</chem>                  | N                       | Class 2          | -0.498                     | -4.377                   | 2.39                |
| Bisphenol-A    | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          | -1.594                     | -4.696                   | 2.39                |
| Bisphenol-A    | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          | -1.594                     | -4.385                   | 3.4                 |
| Bisphenol-A    | 80-05-7  | <chem>Oc(ccc(c1)C(c(ccc(O)c2)c2)(C)C)c1</chem> | N                       | Class 2          | -1.594                     | -4.317                   | 3.4                 |
| Aniline        | 62-53-3  | <chem>Nc(cccc1)c1</chem>                       | N                       | Class 2          | -0.425                     | -3.944                   | 0.9                 |

| Substance name          | CAS #    | SMILES                               | WoE Narc/non-narc (O/N) | Verhaar Modified | log S <sub>L</sub> (mol/L) | Fish log L(E)C50 (mol/L) | log K <sub>OW</sub> |
|-------------------------|----------|--------------------------------------|-------------------------|------------------|----------------------------|--------------------------|---------------------|
| Aniline                 | 62-53-3  | <chem>Nc1ccccc1</chem>               | N                       | Class 2          | -0.425                     | -3.410                   | 0.9                 |
| Phenol                  | 108-95-2 | <chem>Oc1ccccc1</chem>               | N                       | Class 2          | 0.026                      | -4.024                   | 1.5                 |
| 4,4'-Methylenedianiline | 101-77-9 | <chem>Nc1ccc(cc1)Cc2ccc(N)cc2</chem> | N                       | Class 2          | -1.650                     | -3.983                   | 1.6                 |