



| ION science INNOVATION | | Ionisation Potential | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | | | |
|--------------------------------------|----------|----------------------|--|--------|------|-----|------|---------------------------------|----------|---------|-------------|-------------------------|------|---------|--------|------------|------|--------|------|---------|------------|
| | | | ZR = No Response = Non Volatile at 20C NA = No DATA Available RED = Tested Blue = Calculated | | | | | Response factor, methane = 1 | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ppm | ppm TWA | mg.m-3 | mg.m-3 TWA | ppm | mg.m-3 | ppm | TWA ppm | TWA mg.m-3 |
| | | | 11.7 | 10.6 | 10.2 | 8.4 | | | | | | | | | | | | | | | |
| Gas/Volatile (VOC) | Formula | IP | | | | | | | | | | | | | | | | | | | |
| Acetaldehyde | C2H4O | 10.23 | 3.3 | 4.861 | 1 | ZR | | 50 | 20 | 92 | 37 | | | | | | | | 2000 | 200 | 360 |
| Acetic Acid | C2H4O2 | 10.66 | 2.6 | 36.153 | ZR | ZR | | 15 | 10 | 37 | 25 | 15 | 10 | 37 | 25 | | | | 50 | | |
| Acetic Anhydride | C4H6O3 | 10.14 | 2 | 4.000 | ZR | ZR | | 2 | 0.5 | 10 | 2.5 | | | 5 | 20 | 200 | 5 | 20 | | | |
| Acetone | C3H6O | 9.69 | 1.4 | 0.715 | 1 | 1.2 | 1.54 | 1500 | 500 | 3620 | 1210 | | | 250 | 590 | | | 2500 | 1000 | 2400 | |
| Acetonitrile | CH3CN | 12.2 | 100 | ZR | ZR | ZR | | 60 | 40 | 102 | 68 | | | 20 | 34 | | | 500 | 40 | 70 | |
| Acetylene | C2H2 | 11.4 | 2 | ZR | ZR | ZR | 1.25 | | | | | | | | | 2500 | 2662 | ND | | | |
| Acrolein | C3H4O | 10.22 | 3 | 4.000 | 1 | ZR | | 0.3 | 0.1 | 0.7 | 0.23 | 0.3 | 0.1 | 0.8 | 0.25 | | | 2 | 0.1 | 0.25 | |
| Acrylic Acid | C3H4O2 | 10.6 | 2 | 2.749 | ZR | ZR | | 20 | 10 | 60 | 30 | | | 2 | 6 | | | ND | | | |
| Acrylonitrile | C3H3N | 10.91 | 1.2 | ZR | ZR | ZR | | | 2 | | 4.4 | | | 1 | | 10 | | 85 | 2 | | |
| Allyl alcohol | C3H6O | 9.63 | 1.7 | 2.074 | 2 | ZR | | 4 | 2 | 9.7 | 4.8 | 4 | 2 | 10 | 5 | | | 20 | 2 | 5 | |
| Allyl chloride | C3H5Cl | 10.05 | 0.7 | 4.500 | ZR | ZR | | | | | | 2 | 1 | 6 | 3 | | | 250 | 1 | 3 | |
| Ammonia | H3N | 10.18 | 5.7 | 8.496 | 8 | ZR | 0.80 | 35 | 25 | 25 | 18 | 35 | 25 | 27 | 18 | | | 300 | 50 | 35 | |
| Amyl acetate, n- | C7H14O2 | 9.9 | 1 | 1.800 | ZR | ZR | | | | | | | | 100 | 525 | | | 1000 | 100 | 525 | |
| Amyl alcohol | C5H12O | 10 | 4 | 3.200 | 5 | ZR | | | | | | | | | | | | | | | |
| Aniline | C6H7N | 7.70 | 0.47 | 0.500 | 0.5 | 0.5 | | | 1 | | 4 | | | | | | | 100 | 5 | 19 | |
| Anisole | C7H8O | 8.21 | 1 | 0.473 | 1 | 1 | | | | | | | | | | | | | | | |
| Arsine | AsH3 | 9.89 | 3 | 2.500 | 2 | ZR | | | 0.05 | | 0.16 | | | | | 0.002 | 3 | | 0.05 | 0.2 | |
| Asphalt, petroleum fumes | | 9 | NA | 1.000 | NA | NA | | | | 10 | 5 | | | | | | | | | | |
| Benzaldehyde | C7H6O | 9.49 | 1 | 0.858 | 1 | ZR | | | | | | | | | | | | | | | |
| Benzene | C6H6 | 9.24 | 0.6 | 0.500 | 0.53 | ZR | | | 1 | | | 1 | 0.1 | | | | | 500 | 1 | | |
| Benzenethiol | C6H5SH | 8.32 | NA | 0.700 | NA | NA | | | 0.5 | | 2.3 | | | | 0.1 | 0.5 | | ND | | | |
| Benzonitrile | C7H5N | 9.62 | 2 | 0.708 | 1 | ZR | | | | | | | | | | | | | | | |
| Benzyl alcohol | C7H8O | 8.26 | 0.9 | 1.250 | 1.2 | 1.4 | | | | | | | | | | | | | | | |
| Benzyl chloride | C7H7Cl | 9.14 | 0.5 | 0.550 | 1 | ZR | | 1.5 | 0.5 | 7.9 | 2.6 | | | 1 | 5 | | | 10 | 1 | 5 | |
| Benzyl formate | C8H8O2 | 9.32 | 0.66 | 0.770 | 1 | ZR | | | | | | | | | | | | | | | |
| Biphenyl | C12H10 | 8.23 | NA | 0.400 | NA | NA | | 0.6 | 0.2 | 3.8 | 1.3 | | | 0.2 | 1 | | | 20 | 0.2 | 1 | |
| Bis(2,3-epoxypropyl) ether | C6H10O3 | 9.6 | NA | 3.000 | NA | NA | | | | | 0.54 | | | | | | | | | | |
| Boron trifluoride | BF3 | 15.5 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Bromine | Br2 | 10.55 | 0.74 | 20.000 | ZR | ZR | | 0.3 | 0.1 | 2 | 0.66 | 0.3 | 0.1 | 2 | 0.7 | | | 3 | 0.1 | 0.7 | |
| Bromine pentafluoride | BrF5 | 13.17 | ZR | ZR | ZR | ZR | | 0.3 | 0.1 | 2.2 | 0.73 | | | 0.1 | 0.7 | | | ND | | | |
| Bromobenzene | C6H5Br | 8.98 | 0.5 | 0.700 | 1 | ZR | | | | | | | | | | | | | | | |
| Bromochloromethane | CH2ClBr | 10.77 | NA | ZR | ZR | ZR | | 250 | 200 | 1340 | 1080 | | | 200 | 1050 | | | 2000 | 200 | 1050 | |
| Bromoethane | C2H5Br | 10.29 | NA | 5.000 | ZR | ZR | | 250 | 200 | 1130 | 906 | | | | | | | 2000 | 200 | 890 | |
| Bromoethyl methyl ether, 2- | C3H7OBr | 10 | 2 | 2.500 | 1 | ZR | | | | | | | | | | | | | | | |
| Bromoform | CHBr3 | 10.48 | 0.5 | 2.800 | 2 | ZR | | | 0.5 | | 5.3 | | | 0.5 | 5 | | | 850 | 0.5 | 5 | |
| Bromopropane, 1- | C3H7Br | 10.18 | 0.6 | 1.300 | 1 | ZR | | | | | | | | | | | | | | | |
| Bromotrifluoromethane | CF3Br | 11.78 | NA | ZR | ZR | ZR | | 1200 | 1000 | 7430 | 6190 | | | 1000 | 6100 | | | 40000 | 1000 | 6100 | |
| Butadiene | C4H6 | 9.07 | 1.1 | 0.830 | 1 | ZR | | | | | | | | | | | | 2000 | 1 | | |
| Butadiene diepoxide, 1,3- | C4H6O2 | 10 | 1.2 | 4.000 | 10 | ZR | | | | | | | | | | | | | | | |
| Butane, n- | C4H10 | 10.63 | 1 | 46.290 | ZR | ZR | 1.67 | 750 | 600 | 1810 | 1450 | | | 800 | 1900 | | | ND | | | |
| Butanol, 1- | C4H10O | 10.04 | 1.4 | 4.011 | 70 | ZR | | 30 | 50 | | 30 | | | | 50 | 150 | 1400 | 100 | 300 | | |
| Buten-3-ol, 1- | C4H8O | 9.20 | NA | 1.150 | NA | NA | | | | | | | | | | | | | | | |
| Butene, 1- | C4H8 | 9.58 | NA | 1.300 | 1.5 | ZR | | | | | | | | | | | | | | | |
| Butoxyethanol, 2- | C6H14O2 | 8.6 | 0.62 | 1.100 | 1 | 1.8 | | 50 | 25 | | | | | 5 | 24 | | | 700 | 50 | 240 | |
| Butyl acetate, n- | C6H12O2 | 10.00 | NA | 2.418 | 2 | ZR | | 200 | 150 | 966 | 724 | 200 | 150 | 950 | 710 | | | 1700 | 150 | 710 | |
| Butyl acrylate, n- | C7H12O2 | 8.60 | 0.6 | 1.500 | 1 | ZR | | 5 | 1 | 26 | 5 | | | 10 | 55 | | | ND | | | |
| Butyl lactate | C7H14O3 | 9.80 | NA | 2.500 | NA | NA | | | | 5 | 30 | | | 5 | 25 | | | ND | | | |
| Butyl mercaptan | C4H10S | 9.15 | 2 | 0.540 | 0.55 | ZR | | | | | | | | | | 0.5 | 1.8 | 500 | 10 | 35 | |
| Butylamine, 2- | C4H11N | 8.6 | NA | 0.900 | NA | NA | | | | | | | | | | | | | | | |
| Butylamine, n- | C4H11N | 8.71 | 0.7 | 1.000 | 1 | 1.1 | | 5 | | 15 | | | | | | 5 | 15 | 300 | | | |
| Camphene | C10H16 | 8.10 | NA | 0.450 | NA | NA | | | | | | | | | | | | | | | |
| Carbon dioxide | CO2 | 13.77 | ZR | ZR | NA | NA | | 15000 | 5000 | 27400 | 9150 | 30000 | 5000 | 54000 | 9000 | | | 40000 | 5000 | 9000 | |
| Carbon disulfide | CS2 | 10.08 | 0.3 | 1.400 | 1 | ZR | | | 10 | | 32 | 10 | 1 | 30 | 3 | | | 500 | 20 | | |
| Carbon monoxide | CO | 14.01 | ZR | ZR | ZR | ZR | 0.91 | 200 | 30 | 232 | 35 | | | 35 | 40 | 200 | 229 | 1200 | 50 | 55 | |
| Carbon tetrabromide | CBR4 | 10.31 | NA | 3.000 | NA | NA | | 0.3 | 0.1 | 4.1 | 1.4 | 0.3 | 0.1 | 4 | 1.4 | | | ND | | | |
| Carbon tetrachloride | CCl4 | 11.47 | 1.7 | ZR | ZR | ZR | | | 2 | | 13 | 2 | | 12.6 | | | | 200 | 10 | 63 | |
| Carbonyl sulphide | COS | 11.18 | 11 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Carvone, R- | C10H14O | 9.10 | NA | 1.000 | NA | NA | | | | | | | | | | | | | | | |
| Chlorine | Cl2 | 11.48 | 1 | ZR | ZR | ZR | | 1 | 0.5 | 2.9 | 1.5 | | | | | 0.5 | 1.45 | 10 | 1 | 3 | |
| Chlorine dioxide | ClO2 | 10.36 | 2 | 1.000 | ZR | ZR | | 0.3 | 0.1 | 0.84 | 0.28 | 0.3 | 0.1 | 0.9 | 0.3 | | | 5 | 0.1 | 0.3 | |
| Chlorine trifluoride | ClF3 | 12.65 | NA | ZR | ZR | ZR | | 0.1 | | 0.38 | | | | | | 0.1 | 0.4 | 20 | 0.1 | | |
| Chloro-1,1,1,2-tetrafluoroethane, 2- | C2HClF4 | 11.80 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1,1-trifluoroethane, 2- | C2H2ClF3 | 11.7 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1,2,2-tetrafluoroethane, 1- | C2HClF4 | 11.5 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1,2-trifluoroethane, 1- | C2H2ClF3 | 11.8 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1-difluoroethane, 1- | C2H3ClF2 | 12 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1-difluoroethane, 1- | C2H3ClF2 | 11.98 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,1-difluoroethane, 2- | C2H3ClF2 | 11.80 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,2,2-trifluoroethane, 1- | C2H2ClF3 | 11.5 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-1,3-butadiene, 2- | C4H5Cl | 8.79 | 4 | 3.200 | 3 | ZR | | | | 10 | 37 | | | | | | | | | | |
| Chloro-1-fluoroethane, 1- | C2H4ClF | 11.3 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloro-2-fluoroethane, 1- | C2H4ClF | 11.30 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Chloroacetaldehyde | C2H3OCl | 10.61 | NA | ZR | ZR | ZR | | | | | 3.3 | | | | | | | 3 | 45 | 1 | 3 |
| Chlorobenzene | C6H5Cl | 9.07 | 0.39 | 0.450 | 1 | ZR | | 3 | 1 | | | | | | | | | 1000 | 75 | 350 | |
| Chlorodifluoromethane | CHClF2 | | | | | | | | | | | | | | | | | | | | |

| Gas/Volatile (VOC) | Formula | IP | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | | |
|--------------------------------------|-----------|-------|--|--------|------|------|------|------------------------------|---------|-------------|------------|-------------------------|---------|--------|------------|------|--------|---------|---------|------------|
| | | | 11.7 | 10.6 | 10.2 | 8.4 | | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ppm | ppm TWA | mg.m-3 | mg.m-3 TWA | ppm | mg.m-3 | ppm | TWA ppm | TWA mg.m-3 |
| | | | ZR = No Response = Non Volatile at 20C NA = No DATA Available RED = Tested Blue = Calculated | | | | | Response Factor, methane = 1 | | STEL | TWA | STEL | TWA | ST | REL | ST | REL | Ceiling | Ceiling | IDLH |
| Chloromethane | CH3Cl | 11.28 | 0.74 | ZR | ZR | ZR | ZR | 100 | 50 | 210 | 105 | | | | | | | 2000 | 100 | |
| Chloropentafluoroethane | C2ClF5 | 12.96 | ZR | ZR | ZR | ZR | ZR | | 1000 | | 6320 | | | | | | | ND | 1000 | 6320 |
| Chlorotoluene, o- | C7H7Cl | 8.83 | 0.6 | 0.450 | 1 | 1 | | | | | | 75 | 50 | 375 | 250 | | | ND | | |
| Chlorotoluene, p- | C7H7Cl | 8.69 | 0.6 | 0.500 | 1 | 1 | | | | | | | | | | | | | | |
| Chlorotrifluoroethylene | C2ClF3 | 9.81 | 1 | 1.000 | ZR | ZR | | | | | | | | | | | | | | |
| Chlorotrifluoromethane | CClF3 | 12.60 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Citral | C10H16O | 8.70 | NA | 1.000 | NA | NA | | | | | | | | | | | | | | |
| Citronellol | C10H20O | 8.50 | NA | 1.000 | NA | NA | | | | | | | | | | | | | | |
| Cresol, m- | C7H8O | 8.97 | NA | 1.050 | ZR | ZR | | | 5 | | 22 | | 2.3 | | 10 | | | 250 | 5 | 22 |
| Cresol, o- | C7H8O | 8.97 | NA | 1.050 | ZR | ZR | | | 5 | | 22 | | 2.3 | | 10 | | | 250 | 5 | 22 |
| Cresol, p- | C7H8O | 8.97 | NA | 1.050 | ZR | ZR | | | 5 | | 22 | | 2.3 | | 10 | | | 250 | 5 | 22 |
| Crotonaldehyde | C4H6O | 9.73 | 1 | 1.000 | 2 | 1.5 | | | | | | | | | 6 | | | 50 | 2 | 6 |
| Cumene | C9H12 | 8.75 | 0.4 | 0.588 | 0.5 | 15 | | 50 | 25 | 250 | 125 | | 50 | | 245 | | | 900 | 50 | 245 |
| Cyanamide | CN2 | 10.65 | NA | ZR | ZR | ZR | | | | | 2 | | | 2 | | | | ND | | |
| Cyanogen bromide | CNBr | 11.84 | ZR | ZR | ZR | ZR | | | | | 5 | | | | | | | | | |
| Cyanogen chloride | CNCl | 12.49 | ZR | ZR | ZR | ZR | | | | | | | | | | 0.3 | 0.6 | ND | | |
| Cyclohexane | C6H12 | 9.86 | 0.64 | 1.162 | 2 | 3.3 | 1.82 | 300 | 100 | 1050 | 350 | | 300 | | 1050 | | | 1300 | 300 | 1050 |
| Cyclohexanol | C6H12O | 10.00 | 1.1 | 2.906 | 1 | ZR | | | | | 208 | | 50 | | 200 | | | 400 | 50 | 200 |
| Cyclohexanone | C6H10O | 9.40 | 0.7 | 1.039 | 1 | ZR | | 20 | 10 | | | | 25 | | 100 | | | 700 | 50 | 200 |
| Cyclohexene | C6H10 | 8.95 | 1 | 0.750 | 1 | ZR | | | | | | | 300 | | 1015 | | | 2000 | 300 | 1015 |
| Cyclohexylamine | C6H13N | 8.37 | 1 | 0.981 | 1 | 1 | | | | 10 | 41 | | 10 | | 40 | | | ND | | |
| Cyclopentane | C5H10 | 10.52 | 0.6 | 4.000 | ZR | ZR | | | | | | | 600 | | 1720 | | | ND | | |
| Decane, n- | C10H22 | 9.65 | 0.35 | 1.043 | 2 | ZR | | | | | | | | | | | | | | |
| Diacetone alcohol | C6H12O2 | 9.00 | NA | 0.800 | NA | NA | | | | | | | 50 | | 240 | | | 1800 | 50 | 240 |
| Dibenzoyl peroxide | C14H10O4 | 9.00 | NA | 0.800 | NA | NA | | | | 5 | | | | | | | | | | |
| Diborane | B2H6 | 11.38 | NA | ZR | ZR | ZR | | | 0.1 | | 0.12 | | 0.1 | | 0.1 | | | 15 | 0.1 | 0.1 |
| Dibromochloromethane | CHBr2Cl | 10.59 | 0.7 | 10.000 | 5 | ZR | | | | | | | | | | | | | | |
| Dibromodifluoromethane | CF2Br2 | 11.07 | NA | ZR | ZR | ZR | | 150 | 100 | 1310 | 872 | | 100 | | 860 | | | 2000 | 100 | 860 |
| Dibromoethane 1,2- | C2H4Br2 | 9.45 | 0.6 | 2.000 | ZR | ZR | | | 0.5 | | 3.9 | | 0.045 | | | 0.13 | | 100 | 20 | |
| Dibromotetrafluoroethane, 1,2- | C2F4Br2 | 11.1 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dibutyl hydrogen phosphate | HC8H18PO4 | 10.00 | NA | 4.000 | NA | NA | | 2 | 1 | 17 | 8.7 | | 2 | 1 | 10 | 5 | | | 1 | 5 |
| Dichloro-1,1,1-trifluoroethane, 2,2- | C2HCl2F3 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1,1-difluoroethane, 1,2- | C2H2Cl2F2 | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1,2,2-trifluoroethane, 1,2- | C2HCl2F3 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1,2-difluoroethane, 1,2- | C2H2Cl2F2 | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1-fluoroethane, 1,1- | C2H3Cl2F | 11 | 2 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1-fluoroethane, 1,1- | C2H3Cl2F | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1-fluoroethane, 1,2- | C2H3Cl2F | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloro-1-propene, 2,3- | C3H4Cl2 | 10.50 | 0.7 | 1.400 | 1 | 1.9 | | | | | | | | | | | | | | |
| Dichloro-2,2-difluoroethane, 1,1- | C2H2Cl2F2 | 11.5 | 10 | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichloroacetylene | C2Cl2 | 9.9 | NA | 5.000 | NA | NA | | 0.1 | | 0.39 | | | | | | 0.1 | 0.4 | ND | | |
| Dichlorobenzene o- | C6H4Cl2 | 9.06 | 0.38 | 0.500 | 0.5 | ZR | | 50 | 25 | 306 | 153 | | | | | 50 | 300 | 200 | | |
| Dichlorodifluoromethane | CCl2F2 | 11.75 | ZR | ZR | ZR | ZR | | 1250 | 1000 | 6280 | 5030 | | 1000 | | 4950 | | | 15000 | 1000 | 4950 |
| Dichloroethane 1,2- | C2H4Cl2 | 11.05 | 0.6 | ZR | ZR | ZR | | | 5 | | 21 | 2 | 1 | 8 | 4 | | | 50 | 50 | 200 |
| Dichloroethane, 1,1- | C2H4Cl2 | 11.06 | 2 | ZR | ZR | ZR | | | 100 | | | | 100 | | 400 | | | 3000 | 100 | 400 |
| Dichloroethene, 1,1- | C2H2Cl2 | 10.00 | 1 | 0.950 | 1 | ZR | | | 10 | | 40 | | | | | | | ND | | |
| Dichloroethene, cis-1,2- | C2H2Cl2 | 9.66 | 1 | 0.800 | 1 | ZR | | | | | | | | | | | | 1000 | | |
| Dichloroethene, trans-1,2- | C2H2Cl2 | 9.65 | 0.3 | 0.700 | 1 | ZR | | | | | | | | | | | | 1000 | | |
| Dichloroethylene 1,2- | C2H2Cl2 | 9.65 | NA | 0.750 | NA | ZR | | 250 | 200 | 1010 | 806 | | 200 | | 790 | | | 1000 | 200 | 790 |
| Dichlorofluoromethane | CHClF2 | 12.39 | ZR | ZR | ZR | ZR | | | 10 | | 43 | | 10 | | 40 | | | 5000 | 1000 | 4200 |
| Dichloromethane | CH2Cl2 | 11.32 | 0.89 | 39.000 | ZR | ZR | | 300 | 100 | 1060 | 350 | | | | | | | | | |
| Dichloropropane, 1,2- | C3H6Cl2 | 10.87 | 0.7 | ZR | 1 | ZR | | | | | | | | | | | | | | |
| Dichlorotetrafluoroethane, 1,1- | C2Cl2F4 | 12.2 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dichlorotetrafluoroethane, 1,2- | C2Cl2F4 | 12.20 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dicyclopentadiene | C10H12 | 8.00 | 1 | 0.900 | NA | ZR | | | | | | | | | | | | | | |
| Diesel Fuel | | 8 | 0.4 | 0.750 | 3 | 10 | | | | | | | | | | | | | | |
| Diethyl ether | C4H10O | 9.53 | 1.9 | 0.884 | ZR | ZR | | 200 | 100 | 620 | 310 | | | | | | | 1900 | 400 | 1200 |
| Diethyl maleate | C8H12O4 | 10 | NA | 2.000 | NA | NA | | | | | | | | | | | | | | |
| Diethyl phthalate | C12H14O4 | 9 | NA | 1.000 | NA | NA | | | | 10 | 5 | | | | 5 | | | ND | | |
| Diethyl sulphate | C4H10SO4 | | NA | 3.000 | NA | NA | | | 0.05 | | 0.32 | | | | | | | | | |
| Diethyl sulphide | C4H10S | 8.43 | 1 | 0.550 | 1 | 3 | | | | | | | | | | | | | | |
| Diethylamine | C4H11N | 8.01 | 1 | 1.000 | 1 | 1 | | 25 | 10 | 76 | 30 | | 25 | 10 | 75 | 30 | | 200 | 25 | 75 |
| Diethylaminoethanol, 2- | C6H15ON | 9 | NA | 2.700 | NA | NA | | | 10 | | 49 | | 10 | | 50 | | | 100 | 10 | 50 |
| Diethylaminopropylamine, 3- | C7H18N2 | 9.00 | NA | 1.000 | NA | NA | | | | | | | | | | | | | | |
| Difluoroethane, 1,1- | C2H4F2 | 11.87 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Difluoroethane, 1,2- | C2H4F2 | 12 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Difluoromethane | CH2F2 | 12.71 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | | |
| Dihydrogen selenide | H2Se | 9.88 | NA | 1.000 | NA | ZR | | 0.05 | 0.02 | | | | | | | | | | | |
| Dihydroxybenzene, 1,2 | C6H6O2 | 9 | NA | 1.000 | NA | ZR | | | 5 | | 23 | | 5 | | 20 | | | ND | | |
| Dihydroxybenzene, 1,3 | C6H6O2 | 8.63 | NA | 1.000 | NA | ZR | | 20 | 10 | 92 | 46 | | 20 | 10 | 90 | 45 | | ND | | |
| Diisobutylene | C8H16 | 8.8 | NA | 0.643 | NA | NA | | | | | | | | | | | | | | |
| Diisopropyl ether | C6H14O | 9.2 | NA | 0.680 | 1 | ZR | | 310 | 250 | 1310 | 1060 | | 500 | | 2100 | | | 1400 | 500 | 2100 |
| Diisopropylamine | C6H15N | 7.73 | 0.53 | 0.700 | 1 | 0.84 | | | 5 | | 21 | | 5 | | 20 | | | 200 | 5 | 20 |
| Diketene | C4H4O2 | 9.60 | 1.4 | 2.200 | 2 | 2.6 | | | | | | | | | | | | | | |
| Dimethoxymethane | C3H8O2 | 9.70 | NA | 1.400 | NA | ZR | | 1250 | 1000 | 3950 | 3160 | | 1000 | | 3100 | | | 2200 | 1000 | 3100 |
| Dimethyl cyclohexane, 1,2- | C8H16 | 9.41 | NA | 1.050 | NA | NA | | | | | | | | | | | | | | |
| Dimethyl disulphide | C2H6S2 | 7.4 | 0.2 | 0.230 | 0.2 | 0.2 | | | | | | | | | | | | | | |

|  | | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | | |
|---|-----------|----------------------|--|--------|------|------|------------------------------|----------|---------|-------------|-------------------------|-------|---------|--------|------------|---------|--------|-------|---------|
| | | Ionisation Potential | ZR = No Response = Non Volatile at 20C NA = No DATA Available RED = Tested Blue = Calculated | | | | Response factor, methane = 1 | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ppm | ppm TWA | mg.m-3 | mg.m-3 TWA | ppm | mg.m-3 | ppm | TWA ppm |
| Formula | IP | | 11.7 | 10.6 | 10.2 | 8.4 | | | | | | | | | | | | | |
| Gas/Volatile (VOC) | Formula | IP | 11.7 | 10.6 | 10.2 | 8.4 | STEL | TWA | STEL | TWA | ST | REL | ST | REL | Ceiling | Ceiling | IDLH | PEL | PEL |
| Dimethyl sulphide | C2H6S | 8.69 | 0.46 | 0.500 | 0.5 | 0.49 | 50 | 100 | | 10 | | | | | | | | | |
| Dimethylacetamide N,N- | C4H9NO | 8.81 | 0.8 | 1.300 | 0.8 | 0.9 | 20 | 10 | 72 | 36 | | | | | | | | | |
| Dimethylamine | C2H7N | 8.24 | 2 | 1.400 | 1.5 | 1.5 | 6 | 2 | 11 | 3.8 | | 10 | | 18 | | | 500 | 10 | 18 |
| Dimethylaminoethanol | C4H11NO | 9 | NA | 1.500 | NA | ZR | 6 | 2 | 22 | 7.4 | | | | | | | | | |
| Dimethylaniline, NN- | C8H11N | 7.12 | NA | 0.600 | NA | ZR | 10 | 5 | 50 | 25 | 10 | 5 | 50 | 25 | | | 100 | 5 | 25 |
| Dimethylbutyl acetate | C8H16O2 | 7.74 | 2 | 1.600 | 2 | 2 | 100 | 50 | 599 | 299 | | | | | | | | | |
| Dimethylethylamine, NN- | C4H11N | 8.5 | 0.9 | 0.800 | 1 | 1.1 | 15 | 10 | 46 | 30 | | | | | | | | | |
| Dimethylformamide | C3H7NO | 9.13 | 1 | 0.900 | 1 | ZR | 20 | 10 | 61 | 30 | 10 | | | 30 | | | 500 | 10 | 30 |
| Dimethylheptan-4-one, 2,6- | C9H18O | 9.04 | NA | 0.800 | NA | NA | | | 25 | 148 | | | | | | | | | |
| Dimethylhydrazine, 1,1- | C2H8N2 | 8.05 | 0.8 | 1.000 | 2 | 2 | | | | | 0.06 | | | 0.15 | | | 15 | 0.5 | 1 |
| Dinitrobenzene, m- | C6H4N2O4 | 10.43 | NA | 3.000 | NA | NA | 0.5 | 0.15 | 3.5 | 1 | | | | 1 | | | | | 1 |
| Dinitrobenzene, o- | C6H4N2O4 | 10.71 | NA | ZR | NA | NA | 0.5 | 0.15 | 3.5 | 1 | | | | 1 | | | | | 1 |
| Dinitrobenzene, p- | C6H4N2O4 | 10.5 | NA | 5.000 | NA | NA | 0.5 | 0.15 | 3.5 | 1 | | | | 1 | | | | | 1 |
| Dinonyl phthalate | C26H42O4 | 9.19 | NA | 1.000 | NA | NA | | | | 5 | | | | | | | | | |
| Dioxane 1,2- | C4H8O2 | 9.2 | NA | 1.500 | 0.54 | ZR | | | | | | | | | | | | | |
| Dioxane 1,4- | C4H8O2 | 9.13 | NA | 1.500 | NA | NA | 100 | 25 | 366 | 91 | | | 100 | | 360 | 1 | 3.6 | 500 | |
| Dipentene | C10H16 | 8.6 | 1 | 0.900 | NA | ZR | | | | | | | | | | | | | |
| Diphenyl ether | C12H10O | 8.09 | NA | 0.800 | NA | ZR | | | 1 | 7.1 | | | | | | | | | |
| Disulphur decafluoride | S2F10 | 12.77 | NA | ZR | NA | NA | 0.075 | 0.025 | 0.79 | 0.26 | | | | | 0.01 | 0.1 | 1 | 0.025 | 0.25 |
| Disulphur dichloride | S2Cl2 | 10 | NA | 3.000 | NA | NA | 1 | | 5.6 | | | | | | | | | | |
| Di-tert-butyl-p-cresol | C11H16O | 8.3 | NA | 1.000 | NA | NA | | | | 10 | | | | 10 | | | | ND | |
| Divinylbenzene | C10H10 | 8.2 | NA | 0.400 | NA | ZR | | | 10 | 54 | | | 10 | | | | | ND | |
| Dodecanol | C12H26O | 9.8 | 1 | 0.900 | NA | ZR | | | | | | | | | | | | | |
| Enflurane | C4H2F5ClO | 11.00 | NA | ZR | NA | NA | | | 50 | 383 | | | | | 2 | 15.1 | ND | | |
| Epichlorohydrin | C3H5ClO | 10.2 | 1.4 | 8.000 | 1 | ZR | 1.5 | 0.5 | 5.8 | 1.9 | | | | | | | 75 | 5 | 19 |
| Epoxypropyl isopropyl ether, 2,3- | C8H12O2 | 10.00 | NA | 1.100 | NA | NA | 75 | 50 | 363 | 241 | | | | | | | | | |
| Ethane | C2H6 | 11.56 | NA | ZR | NA | NA | | | | | | | | | | | | | |
| Ethanol | C2H6O | 10.43 | 8 | 8.720 | NA | ZR | 1.43 | 1000 | | 1920 | | 1000 | | 2900 | | | 3300 | 1000 | 3900 |
| Ethanolamine | C2H7NO | 10.47 | 3 | 3.000 | ZR | ZR | | | | | 6 | 3 | 15 | 8 | | | 30 | 3 | 8 |
| Ethoxy-2-propanol, 1- | C5H10O2 | 9.60 | 0.8 | 2.000 | NA | ZR | 100 | 50 | 548 | 274 | | | | | | | | | |
| Ethoxyethanol, 2- | C4H10O2 | 9.6 | 3 | 29.837 | 1 | ZR | | | 10 | 37 | | 0.5 | | 1.8 | | | 500 | 200 | 740 |
| Ethoxyethyl acetate, 2- | C6H12O3 | 10 | NA | 3.000 | NA | NA | | | | | | 0.5 | | 2.7 | | | 500 | 100 | 540 |
| Ethyl (S)-(-)-lactate | C5H10O3 | 10.00 | 1.6 | 3.000 | 4 | 13 | | | | | | | | | | | | | |
| Ethyl acetate | C4H8O2 | 10.01 | 1 | 3.634 | 5 | ZR | 2.00 | 400 | 200 | | 400 | | | 1400 | | | 2000 | 400 | 1400 |
| Ethyl acrylate | C5H8O2 | 10.30 | 1 | 2.000 | 3 | ZR | | 15 | 5 | 62 | 21 | | | | | | 300 | 25 | 100 |
| Ethyl amine | C2H7N | 8.86 | 1 | 1.000 | 1 | ZR | | 6 | 2 | 11 | 3.8 | | | 10 | | | 600 | 10 | 18 |
| Ethyl benzene | C8H10 | 8.76 | 0.51 | 0.540 | 0.52 | 0.52 | | 125 | 100 | 552 | 441 | 125 | 100 | 545 | 435 | | 800 | 100 | 435 |
| Ethyl butyrate | C6H12O2 | 9.90 | NA | 0.950 | NA | 2 | | | | | | | | | | | | | |
| Ethyl chloroformate | C3H5O2Cl | 10.64 | 1.955 | 83.000 | NA | ZR | | | 1 | 4.5 | | | | | | | | | |
| Ethyl cyanoacrylate | C6H7O2N | 10 | NA | 1.500 | NA | 3 | 0.3 | | 1.5 | | | | | | | | | | |
| Ethyl decanoate | C12H24O2 | 9.6 | NA | 1.800 | NA | NA | | | | | | | | | | | | | |
| Ethyl formate | C3H6O2 | 10.61 | 1.9 | 29.837 | ZR | ZR | 150 | 100 | 462 | 308 | | | 100 | | 300 | | 1500 | 100 | 300 |
| Ethyl hexanoate | C8H16O2 | 9.75 | NA | 2.600 | NA | NA | | | | | | | | | | | | | |
| Ethyl hexanol, 2- | C8H18O | 9.80 | 1 | 1.500 | NA | ZR | | | | | | | | | | | | | |
| Ethyl hexyl acrylate, 2- | C11H20O2 | 9 | 0.5 | 1.000 | 1.2 | ZR | | | | | | | | | | | | | |
| Ethyl mercaptan | C2H6S | 9.29 | 1 | 0.695 | ZR | ZR | 2 | 0.5 | 5.2 | 1.3 | | | | 0.5 | 1.3 | 500 | | | |
| Ethyl octanoate | C10H20O2 | 9.70 | NA | 2.300 | NA | NA | | | | | | | | | | | | | |
| Ethylene | C2H4 | 10.51 | 3 | 8.000 | ZR | ZR | 1.11 | | | | | | | | | | | | |
| Ethylene dinitrate | C2H4O6N2 | 10.8 | NA | ZR | NA | NA | 0 | 0 | 1 | 1 | | | | 0 | | | | | |
| Ethylene glycol | C2H6O2 | 10.16 | NA | 20.000 | NA | ZR | | | | 104 | 52 | | | | | | ND | | |
| Ethylene oxide | C2H4O | 10.56 | 2 | 15.000 | ZR | ZR | | 5 | | 9.2 | | 0.1 | | 0.18 | 5 | 9 | 800 | 1 | 5 |
| Ferrocene | C10H10Fe | 6.88 | NA | 0.800 | NA | NA | | | 20 | 10 | | | | 10 | | | ND | | 15 |
| Fluorine | F2 | 15.7 | NA | ZR | NA | NA | 1 | 1 | | | | | 0.1 | | 0.2 | | 25 | 0.1 | 0.2 |
| Fluoroethane | C2H5F | 11.78 | NA | ZR | NA | ZR | | | | | | | | | | | | | |
| Fluoromethane | CH3F | 12.47 | NA | ZR | NA | ZR | | | | | | | | | | | | | |
| Formaldehyde | CH2O | 10.87 | 0.6 | ZR | ZR | ZR | 2 | 2 | 2.5 | 2.5 | | 0.016 | | | 0.1 | | 20 | 0.75 | |
| Formamide | CH3ON | 10.20 | NA | 2.000 | NA | ZR | 30 | 20 | 56 | 37 | | 10 | | 15 | | | ND | | |
| Formic acid | CH2O2 | 11.05 | 5 | ZR | ZR | ZR | | 5 | | 9.6 | | 5 | | 9 | | | 30 | 5 | 9 |
| Furfural | C5H4O2 | 9.21 | 0.8 | 1.387 | 1 | ZR | | | | | | | | | | | 100 | 5 | 20 |
| Furfuryl alcohol | C5H6O2 | 9.90 | NA | 2.000 | NA | NA | 15 | 5 | 61 | 20 | 15 | 10 | 60 | 40 | | | 75 | 50 | 200 |
| Gasoline vapors | | 9.90 | NA | 1.050 | NA | ZR | | | | | | | | | | | ND | | |
| Gasoline vapors | | 9.90 | NA | 0.800 | 1 | ZR | | | | | | | | | | | ND | | |
| Gasoline vapors 92 octane | | 9.90 | 0.47 | 0.800 | 1.3 | 2 | | | | | | | | | | | | | |
| Germane | GeH4 | 11.34 | NA | 10.000 | NA | NA | 0.6 | 0.2 | 1.9 | 0.64 | | 0.2 | | 0.6 | | | ND | | |
| Glutaraldehyde | C5H8O2 | 9.6 | 0.6 | 0.900 | 1.1 | ZR | 0.05 | 0.05 | 0.2 | 0.2 | | 0.2 | | 0.8 | | | ND | | |
| Halothane | CF3CHBrCl | 11 | 0.6 | ZR | ZR | ZR | | | 10 | 82 | | | | | 2 | 16.2 | ND | | |
| Helium | He | 24.59 | NA | ZR | NA | NA | | | | | | | | | | | | | |
| Heptan-2-one | C7H14O | 9.33 | NA | 0.730 | NA | ZR | 100 | 50 | 475 | 237 | | 100 | | 465 | | | 800 | 100 | 465 |
| Heptan-3-one | C7H14O | 9.02 | NA | 0.750 | NA | ZR | 100 | 35 | 475 | 166 | | 50 | | 230 | | | 1000 | 50 | 230 |
| Heptane n- | C7H16 | 9.92 | 0.6 | 2.064 | 45 | 50 | 2.22 | 500 | | | 85 | | 350 | 440 | 1800 | 750 | 500 | 2000 | |
| Hexachloroethane | C2Cl6 | 11.22 | 1 | ZR | ZR | ZR | | 5 | | 49 | | | 1 | | 10 | | 300 | 1 | 10 |
| Hexafluoroethane | C2F6 | 13.60 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | |
| Hexamethyldisilazane, 1,1,1,3,3,3- | C6H19NSi2 | 8.60 | 0.19 | 1.000 | 1 | 1 | | | | | | | | | | | | | |
| Hexamethyldisiloxane. | C6H18OSi2 | 9 | NA | 0.280 | 1 | ZR | | | | | | | | | | | | | |
| Hexan-2-one | C6H12O | 9.34 | NA | 0.800 | NA | ZR | | | 5 | 21 | | | 1 | | 4 | | 1600 | 100 | 410 |
| Hexane n- | C6H14 | 10.13 | 0.5 | 4.200 | 10 | ZR | 2.22 | 20 | | 72 | | 50 | | 180 | | | 1100 | 500 | 1800 |
| Hexene, 1- | C6H12 | 9.44 | NA | 0.900 | 1.2 | NA | | | | | | | | | | | | | |
| Hydrazine | H4N2 | 8.93 | 2.1 | 3.000 | 3 | 3 | | 0.1 | 0.02 | 0.13 | 0.03 | | | 0.03 | 0.04 | 50 | 1 | 1.3 | |
| Hydrazoic acid | HN3 | 10.72 | NA | ZR | NA | NA | | 0.1 | | 0.18 | | | | | | | | | |
| Hydrogen | H2 | 15.43 | ZR | ZR | ZR | ZR | 0.95 | | | | | | | | | | | | |

| Gas/Volatile (VOC) | Formula | IP | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | | |
|--------------------------------|-----------|-------|--|---------|------|------|------|---------------------------------|---------|-------------|------------|-------------------------|---------|--------|------------|-----|---------|---------|---------|------------|
| | | | 11.7 | 10.6 | 10.2 | 8.4 | | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ppm | ppm TWA | mg.m-3 | mg.m-3 TWA | ppm | mg.m-3 | ppm | TWA ppm | TWA mg.m-3 |
| | | | ZR = No Response = Non Volatile at 20C NA = No DATA Available RED = Tested Blue = Calculated | | | | | Response Factor, methane = 1 | STEL | TWA | STEL | TWA | ST | REL | ST | REL | Ceiling | Ceiling | IDLH | PEL |
| Hydrogen bromide | HBr | 11.62 | NA | ZR | NA | NA | | 3 | | 10 | | | | | 3 | 10 | 30 | 3 | 10 | |
| Hydrogen chloride | HCl | 12.74 | NA | ZR | NA | NA | | 5 | 1 | 8 | 2 | | | | 5 | 7 | 50 | | | |
| Hydrogen cyanide | HCN | 13.60 | ZR | ZR | ZR | ZR | | 10 | | 11 | | 4.7 | | 5 | | | 50 | 10 | 11 | |
| Hydrogen fluoride | HF | 15.98 | NA | ZR | NA | NA | | 3 | 1.8 | 2.5 | 1.5 | | 3 | | 2.5 | 6 | 5 | 30 | 3 | 2.5 |
| Hydrogen peroxide | H2O2 | 10.54 | 1 | 4.000 | ZR | ZR | | 2 | 1 | 2.8 | 1.4 | | 1 | | 1.4 | | 75 | 1 | 1.4 | |
| Hydrogen sulfide | H2S | 10.46 | 1.5 | 4.000 | ZR | ZR | | 10 | 5 | 14 | 7 | | | | 10 | 15 | 100 | | | |
| Hydroquinone | C6H6O2 | 7.94 | NA | 0.800 | NA | NA | | | | 4 | 2 | | | | | 2 | | | | |
| Hydroxypropyl acrylate 2- | C6H10O3 | 9 | NA | 1.500 | NA | ZR | | | 0.5 | | 2.7 | | 0.5 | | 3 | | | | | ND |
| Iminodi(ethylamine) 2,2- | C4H13N3 | 9 | NA | 0.900 | NA | ZR | | | 1 | | 4.3 | | | | | | | | | |
| Iminodiethanol 2,2'- | C4H11NO2 | 9 | NA | 1.600 | NA | ZR | | | 3 | | 13 | | 3 | | 15 | | | | | ND |
| Indene | C9H8 | 8.81 | NA | 0.460 | NA | ZR | | 15 | 10 | 72 | 48 | | 10 | | 45 | | | | | ND |
| Iodine | I2 | 9.31 | 0.1 | 0.150 | 1 | ZR | 2.22 | 0.1 | | 1.1 | | | 0.1 | | 1 | | | 2 | 0.1 | 1 |
| Iodoform | CHI3 | 9.25 | NA | 1.500 | NA | NA | | 1 | 0.6 | 16 | 9.8 | | 0.6 | | 10 | | | | | ND |
| Iodomethane | CH3I | 9.54 | 0.26 | 0.400 | 1 | ZR | | | 2 | | 12 | | 2 | | 10 | | | 100 | 5 | 28 |
| Isoamyl acetate | C7H14O2 | | NA | 1.600 | NA | NA | | 100 | 50 | 541 | 270 | | 100 | | 525 | | | 1000 | 100 | 525 |
| Isobutane | C4H10 | 10.57 | 1.2 | 8.000 | ZR | ZR | | | | | | | 800 | | 1900 | | | | | ND |
| Isobutanol | C4H10O | 10.12 | 1.5 | 3.500 | 19 | ZR | | 75 | 50 | 231 | 154 | | 50 | | 150 | | | 1600 | 100 | 300 |
| Isobutyl acetate | C6H12O2 | 9.90 | NA | 2.260 | NA | ZR | | 187 | 150 | 903 | 724 | | 150 | | 700 | | | 1300 | 150 | 700 |
| Isobutyl acrylate | C7H12O2 | 9.50 | 0.6 | 1.300 | NA | NA | | | | | | | | | | | | | | |
| Isobutylene | C4H8 | 9.24 | 1 | 1.000 | 2 | ZR | | | | | | | | | | | | | | |
| Isobutyraldehyde | C4H8O | 9.00 | NA | 1.200 | NA | ZR | | | | | | | | | | | | | | |
| Isocyanates, all | | 10 | NA | NV | NA | NA | | | | | 0.07 | 0.02 | | | | | | | | |
| Isodecanol | C10H22O | 9.80 | 1 | 0.900 | NA | ZR | | | | | | | | | | | | | | |
| Isoflurane | C3H2ClF5O | 11.00 | NA | ZR | NA | NA | | | 50 | | 383 | | | | | | | | | |
| Isononanol | C9H20O | 9.80 | 1 | 1.500 | NA | ZR | | | | | | | | | | | | | | |
| Isooctane | C8H18 | 9.86 | 1 | 1.085 | 1 | ZR | 2.22 | | | | | | | | | | | | | |
| Isooctanol | C8H18O | 9.80 | 1 | 1.700 | NA | ZR | | | | | | | | | | | | | | |
| Isopentane | C5H12 | 10.32 | 4 | 6.000 | ZR | ZR | | | | | | | | | | | | | | |
| Isophorone | C9H14O | 9.07 | NA | 0.750 | NA | ZR | | 5 | | 29 | | | 4 | | 23 | | | 200 | 25 | 140 |
| Isoprene | C5H8 | 8.85 | 0.6 | 0.698 | 1 | 0.69 | 1.82 | 100 | 250 | | 100 | | | | | | | | | |
| Isopropanol | C3H8O | 10.17 | 2.7 | 4.352 | 40 | 500 | | 500 | 400 | 1250 | 999 | | | | | | | | | |
| Isopropyl acetate | C5H10O2 | 9.99 | NA | 2.202 | 5 | ZR | | 200 | | | 849 | | | | | | | 1800 | 250 | 950 |
| Isopropyl chloroformate | C4H7O2Cl | 10.20 | NA | 1.600 | NA | NA | | | 1 | | 5.1 | | | | | | | | | |
| Jet Fuel JP-4 | | 9.00 | 0.42 | 0.750 | 1 | ZR | | | | | | | | | | | | | | |
| Jet Fuel JP-5 | | 9.00 | 0.46 | 0.650 | 1 | ZR | | | | | | | | | | | | | | |
| Jet Fuel JP-8 | | 9.00 | 0.32 | 0.650 | 1 | ZR | | 15 | 30 | | 15 | | | | | | | | | |
| Kerosene | | 8 | NA | 0.830 | NA | ZR | | | | | | | | | 100 | | | | | ND |
| Ketene | C2H2O | 9.617 | NA | 3.000 | NA | ZR | | 1.5 | 0.5 | 2.6 | 0.87 | | | | | | | | | |
| Liquefied petroleum gas | | 10.95 | NA | ZR | NA | ZR | | 1250 | 1000 | 2180 | 1750 | | 1000 | | 1800 | | | 2000 | 1000 | 1800 |
| Maleic anhydride | C4H2O3 | 9.9 | NA | 2.000 | NA | NA | | | | 3 | 1 | | 0.25 | | 1 | | | 2.5 | 0.25 | 1 |
| Mercaptoacetic acid | C2H4O2S | 9.8 | NA | 1.000 | NA | NA | | | 1 | | 3.8 | | | | | | | | | |
| Mercury | Hg | 10.44 | NA | NV | NA | NA | | | | | | | | | | 0.1 | | | | 0.05 |
| Mercury alkyls | | | NA | NV | NA | NA | | | | | 0.03 | 0.01 | | | | | | | | |
| Mesitylene | C9H12 | 8.41 | 0.32 | 0.340 | 0.36 | 1 | | 100 | 250 | 500 | 100 | | | | | | | | | |
| Methacrylic acid | C4H6O2 | 10.15 | NA | 2.300 | NA | ZR | | 40 | 20 | 143 | 72 | | 20 | | 70 | | | | | ND |
| Methacrylonitrile | C4H5N | 10.34 | NA | 5.000 | ZR | ZR | | | 1 | | 2.8 | | 1 | | 3 | | | | | ND |
| Methane | CH4 | 12.51 | ZR | ZR | ZR | ZR | 1.00 | | | | | | | | | | | | | |
| Methanol | CH4O | 10.85 | 2.5 | 200.000 | ZR | ZR | 1.11 | 250 | 200 | 333 | 266 | | 250 | 200 | 325 | 260 | | 6000 | 200 | 260 |
| Methoxyethanol, 2- | C3H8O2 | 9.60 | 1.4 | 2.700 | 4.8 | ZR | | | | | | | 0.1 | | 0.3 | | | 200 | 25 | 80 |
| Methoxyethoxyethanol, 2- | C5H12O3 | 10 | 0.9 | 1.400 | 2.3 | ZR | | | | | | | | | | | | | | |
| Methoxymethylethoxy-2-propanol | C7H16O3 | 9.3 | NA | 1.300 | NA | ZR | | | 50 | | 308 | | | | | | | | | |
| Methoxypropan-2-ol | C4H10O2 | 9.4 | 1.1 | 3.000 | 1.5 | ZR | | 150 | 100 | 560 | 375 | | 150 | 100 | 540 | 360 | | | | ND |
| Methoxypropyl acetate | C6H12O3 | 9.00 | 0.8 | 1.200 | NA | ZR | | 100 | 50 | 548 | 274 | | | | | | | | | |
| Methyl acetate | C3H6O2 | 10.27 | 1.4 | 5.186 | 1 | ZR | | 250 | 200 | 770 | 616 | | 250 | 200 | 760 | 610 | | 3100 | 200 | 610 |
| Methyl acrylate | C4H6O2 | 10.25 | 1.2 | 3.400 | 3 | ZR | | | 10 | | 36 | | 10 | | 35 | | | 250 | 10 | 35 |
| Methyl bromide | CH3Br | 10.54 | 1.3 | 1.900 | ZR | ZR | | 2 | 5 | | 1 | | | | | | | 250 | 20 | 80 |
| Methyl cyanoacrylate | C5H5O2N | 10.00 | NA | 5.000 | NA | NA | | 0.3 | | 1.4 | | | 4 | 2 | 16 | 8 | | | | ND |
| Methyl ethyl ketone | C4H8O | 9.51 | 1.1 | 0.766 | 0.86 | 0.86 | 2.00 | 300 | 200 | 899 | 600 | | 300 | 200 | 885 | 590 | | 3000 | 200 | 590 |
| Methyl ethyl ketone peroxides | C8H18O2 | | NA | 0.800 | NA | NA | | 0.2 | | 1.5 | | | | | | 0.2 | 1.5 | | | |
| Methyl formate | C2H4O2 | 10.82 | NA | ZR | ZR | ZR | | 150 | 100 | 374 | 250 | | 150 | 100 | 375 | 350 | | | | 4500 |
| Methyl isobutyl ketone | C6H12O | 9.30 | 0.6 | 0.802 | 0.9 | 0.9 | | 100 | 50 | 416 | 208 | | 75 | 50 | 300 | 205 | | 500 | 100 | 410 |
| Methyl isocyanate | C2H3NO | 10.67 | 1.5 | ZR | ZR | ZR | | | | | | | 0.02 | | 0.05 | | | 3 | 0.02 | 0.05 |
| Methyl isothiocyanate | C2H3NS | 9.25 | 0.4 | 0.600 | 1 | ZR | | | | | | | | | | | | | | |
| Methyl mercaptan | CH4S | 9.44 | 1 | 0.700 | 1 | ZR | | | 0.5 | | 1 | | | | | 0.5 | 1 | 150 | | |
| Methyl methacrylate | C5H8O2 | 9.70 | 1.2 | 1.600 | 1 | 2.7 | | 100 | 50 | 416 | 208 | | 100 | | 410 | | | 1000 | 100 | 410 |
| Methyl propyl ketone | C5H10O | 9.39 | 0.79 | 0.790 | 1 | ZR | | 250 | 200 | 895 | 716 | | | | | | | | | |
| Methyl salicylate | C8H8O3 | 9.70 | NA | 1.200 | NA | NA | | | | | | | | | | | | | | |
| Methyl sulphide | C2H6S | 8.69 | 0.46 | 0.500 | 0.5 | 0.49 | | | | | | | | | | | | | | |
| Methyl t-butyl ether | C5H12O | 9.24 | 1 | 0.800 | 1 | ZR | | 75 | 25 | 275 | 92 | | | | | | | | | |
| Methyl-2-propen-1-ol, 2- | C4H8O | 9.60 | NA | 1.057 | NA | NA | | | | | | | | | | | | | | |
| Methyl-2-pyrrolidinone, N- | C5H9NO | 9.17 | 0.9 | 0.900 | 1 | 1 | | 75 | 25 | 309 | 103 | | | | | | | | | |
| Methyl-4,6-dinitrophenol, 2- | C7H6N2O5 | 9.1 | NA | 3.000 | NA | NA | | | | 0.6 | 0.2 | | | | | | | | | |
| Methyl-5-hepten-2-one, 6- | C8H14O | 9.40 | NA | 0.800 | NA | NA | | | | | | | | | | | | | | |
| Methylamine | CH5N | 8.97 | 1 | 1.400 | 1 | ZR | | | 10 | | 13 | | 10 | | 12 | | | 100 | 10 | 12 |
| Methylbutan-1-ol, 3- | C5H12O | 9.80 | NA | 3.400 | NA | ZR | | 125 | 100 | 458 | 366 | | 125 | 100 | 500 | 360 | | 500 | 125 | 450 |
| Methylcyclohexane | C7H14 | 9.85 | 0.53 | 1.100 | 1.6 | ZR | | 400 | 500 | 500 | 400 | | 400 | | 1600 | | | | | |

| ION science INNOVATION | Ionisation Potential | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | | | | |
|---------------------------------------|----------------------|----------------------|------|------------------------------|------|------|------------------------|----------|---------|-------------|-------------------------|------|---------|--------|------------|------|--------|------|---------|------------|-----|
| | | Formula | IP | Response Factor, methane = 1 | | | | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ppm | ppm TWA | mg.m-3 | mg.m-3 TWA | ppm | mg.m-3 | ppm | TWA ppm | TWA mg.m-3 | |
| | | | | 11.7 | 10.6 | | 10.2 | | | | | | | | | | | | | | 8.4 |
| Gas/Volatile (VOC) | | | | | | | | | | | | | | | | | | | | | |
| Methylhydrazine | CH6N2 | 8 | 1.3 | 1.300 | 1.4 | 1.4 | | | | | 0.04 | | 0.08 | | | | | | 20 | | |
| Methyl-N-2,4, 6-tetranitroaniline, N- | C7H5N5O8 | 9 | NA | 3.000 | NA | NA | | | 3 | 1.5 | | | | | | | | | | | |
| Methylpent-3-en-2-one, 4- | C6H10O | 9 | NA | 0.720 | NA | ZR | 25 | 15 | 102 | 61 | | | | | | | | | | | |
| Methylpentan-2-ol, 4- | C6H14O | 9.8 | NA | 2.800 | NA | ZR | 40 | 25 | 170 | 106 | 40 | 25 | 165 | 100 | | | | 400 | 25 | 100 | |
| Methylpentane-2,4-diol, 2- | C6H14O2 | 9 | NA | 4.000 | NA | ZR | 25 | 25 | 123 | 123 | | | | | 25 | 125 | | ND | | | |
| Methylpropan-2-ol, 2- | C4H10O | 9.70 | NA | 3.500 | NA | ZR | 150 | 100 | 462 | 308 | 150 | 100 | 450 | 300 | | | | 1600 | 100 | 300 | |
| Methylstyrene | C9H10 | 8.2 | 1 | 0.530 | 1 | 1 | 150 | 100 | 736 | 491 | | 100 | | 480 | | | | 400 | 100 | 480 | |
| Mineral oil | | 9.00 | NA | 0.800 | NA | NA | | | | | | | | | | | | | | | |
| Mineral spirits | | 9.00 | 0.39 | 0.800 | 1 | ZR | | | | | | | | 350 | | 1800 | | | 500 | | |
| Naphthalene | C10H8 | 8.14 | 0.4 | 0.440 | 0.45 | 0.45 | 15 | 10 | 80 | 53 | 15 | 10 | 75 | 50 | | | | 250 | 10 | 50 | |
| Nitric oxide | NO | 9.27 | 2.8 | 8.000 | 1 | ZR | 35 | 25 | 44 | 31 | | 25 | | 30 | | | | 100 | 25 | 30 | |
| Nitroaniline 4- | C6H6N2O2 | 8.85 | NA | 0.800 | NA | NA | | | | 6 | | 0.5 | | 3 | | | | 1 | 1 | 6 | |
| Nitrobenzene | C6H5NO2 | 9.92 | 1.6 | 1.700 | 2.6 | ZR | 2 | 1 | 10 | 5.1 | | 1 | | 5 | | | | 200 | 1 | 5 | |
| Nitroethane | C2H5NO2 | 10.88 | 3 | ZR | ZR | ZR | | 100 | | 312 | | 100 | | 310 | | | | 1000 | 100 | 310 | |
| Nitrogen dioxide | NO2 | 9.58 | ZR | 10.000 | ZR | ZR | 5 | 3 | 9.6 | 5.7 | | 1 | | 1.8 | | | | 20 | | | |
| Nitrogen trichloride | Cl3N | 10.22 | 1 | 1.000 | 1 | ZR | | | | | | | | | | | | | | | |
| Nitrogen trifluoride | NF3 | 12.97 | NA | ZR | ZR | ZR | 15 | 10 | 44 | 30 | | 10 | | 29 | | | | 1000 | 10 | 29 | |
| Nitromethane | CH3NO2 | 11.08 | 4 | ZR | ZR | ZR | 150 | 100 | 381 | 254 | | | | | | | | 750 | 100 | 250 | |
| Nitropropane, 1- | C3H7NO2 | 10.81 | NA | ZR | ZR | ZR | | | | 93 | | 25 | | 90 | | | | 1000 | 25 | 90 | |
| Nitropropane, 2- | C3H7NO2 | 10.71 | 2.6 | ZR | ZR | ZR | | | | | | | | | | | | | 25 | 90 | |
| Nitrous oxide | N2O | 12.89 | NA | ZR | NA | NA | | 100 | | 183 | | 25 | | 46 | | | | ND | | | |
| Nonane, n- | C9H20 | 9.72 | 1 | 1.272 | 5 | ZR | | | 0.3 | 0.1 | | 200 | | 1050 | | | | ND | | | |
| Norbornadiene, 2,5- | C7H8 | 8 | NA | 0.600 | NA | NA | | | | | | | | | | | | | | | |
| Octachloronaphthalene | C10Cl8 | 9 | NA | 1.000 | NA | NA | | | 0.3 | 0.1 | | | 0.3 | 0.1 | | | | | | 0.1 | |
| Octane, n- | C8H18 | 9.8 | NA | 1.586 | 13.2 | 13.2 | 2.50 | | | | | 75 | | 350 | 385 | 1800 | 1000 | 500 | 2350 | | |
| Octene, 1- | C8H16 | 9.43 | NA | 0.697 | NA | NA | | | | | | | | | | | | | | | |
| Oxalic acid | C2H2O4 | 11 | NA | ZR | NA | NA | | | 2 | 1 | | | 2 | 1 | | | | | | 1 | |
| Oxalonnitrile | C2N2 | 13.57 | NA | ZR | NA | NA | | 10 | | 22 | | 10 | | 20 | | | | ND | | | |
| Oxydiethanol 2,2- | C4H10O3 | | NA | 4.000 | NA | NA | | | | 101 | | | | | | | | | | | |
| Oxygen | O2 | 12.07 | NA | ZR | NA | NA | | | | | | | | | | | | | | | |
| Ozone | O3 | 12.52 | NA | ZR | NA | NA | 0.2 | | 0.4 | | | | | | 0.1 | 0.2 | | 5 | 0.1 | 0.2 | |
| Paraffin wax, fume | | | NA | 1.000 | NA | NA | | | 6 | 2 | | | | 2 | | | | ND | | | |
| Paraffins, normal | | 10 | 1 | 0.950 | NA | ZR | | | | | | | | | | | | | | | |
| Pentacarbonyl iron | FeC5O5 | 9 | NA | 1.000 | NA | NA | | 0.01 | | 0.08 | 0.2 | 0.1 | 0.45 | 0.23 | | | | ND | | | |
| Pentachloroethane | C2HCl5 | 11.28 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Pentachlorofluoroethane | C2Cl5F | 11.8 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Pentafluoroethane | C2HF5 | 12 | NA | ZR | ZR | ZR | | | | | | | | | | | | | | | |
| Pentan-2-one | C5H10O | 9.38 | NA | 0.790 | 1 | ZR | 250 | 200 | 895 | 716 | | 150 | | 530 | | | | 1500 | 200 | 700 | |
| Pentan-3-one | C5H10O | 9.31 | NA | 0.800 | NA | ZR | 250 | 200 | 895 | 716 | | 200 | | 705 | | | | ND | | | |
| Pentandione, 2,4- | C5H8O2 | 8.85 | NA | 0.750 | NA | NA | | | | | | | | | | | | | | | |
| Pentane, n- | C5H12 | 10.35 | 0.7 | 7.887 | 10 | ZR | 1.82 | 600 | 750 | 600 | | 120 | | 350 | 610 | 1800 | 1500 | 1000 | 2950 | | |
| Peracetic acid | C2H4O3 | | 2.3 | 2.000 | ZR | ZR | | | | | | | | | | | | | | | |
| Perchloryl fluoride | ClO3F | 13.6 | NA | ZR | NA | NA | 6 | 3 | 26 | 13 | 6 | 3 | 28 | 14 | | | | 100 | 3 | 13.5 | |
| Perfluoropropane | C3F8 | 13.38 | NA | ZR | NA | ZR | | | | | | | | | | | | | | | |
| Petroleum ether | | 10 | 1 | 0.900 | NA | ZR | | | | | | | | | | | | | | | |
| Phenol | C6H6O | 8.51 | 0.9 | 1.200 | 1 | 1 | | 2 | | | | 5 | | 19 | 15.6 | 60 | 250 | 5 | 19 | | |
| Phenyl propene, 2- | C9H10 | 8.35 | NA | 0.440 | NA | NA | 100 | 50 | 491 | 246 | 100 | 50 | 485 | 240 | | | | 700 | | | |
| Phenyl-2,3-epoxypropyl ether | C9H10O2 | 8.6 | NA | 0.800 | NA | ZR | | 1 | | 6.2 | 10 | | 60 | 1 | | 6 | 100 | | | | |
| Phenylenediamine, p- | C6H8N2 | 6.89 | NA | 0.600 | NA | NA | | | | 0.1 | | | | 0.1 | | | | | | 0.1 | |
| Phosgene | COCl2 | 11.55 | 2.1 | ZR | NA | NA | 0.06 | 0.02 | 0.25 | 0.08 | | 0.1 | | 0.4 | 0.2 | 0.8 | 2 | 0.1 | 0.4 | | |
| Phosphine | PH3 | 9.96 | 1.4 | 2.000 | ZR | ZR | 0.3 | | 0.42 | | 1 | 0.3 | 1 | 0.4 | | | | 50 | 0.3 | 0.4 | |
| Picoline, 3- | C6H7N | 9.04 | 1 | 0.900 | 1 | ZR | | | | | | | | | | | | | | | |
| Pinene, alpha | C10H16 | 8.07 | 0.47 | 0.317 | 0.38 | 1.1 | | | | | | | | | | | | | | | |
| Pinene, beta | C10H16 | 8.1 | 0.37 | 0.315 | 0.76 | 0.38 | | | | | | | | | | | | | | | |
| Piperidine | C5H11N | 8.03 | NA | 0.900 | NA | NA | | 1 | | 3.5 | | | | | | | | | | | |
| Piperylene | C5H8 | 8.6 | 0.64 | 0.669 | 1 | ZR | | | | | | | | | | | | | | | |
| Prop-2-yn-1-ol | C3H4O | 9 | NA | 1.300 | NA | NA | 3 | 1 | 7 | 2.3 | | 1 | | 2 | | | | ND | | | |
| Propan-1-ol | C3H8O | 10.2 | 1.7 | 4.800 | 10 | ZR | 250 | 200 | 625 | 500 | 250 | 200 | 625 | 500 | | | | 800 | 200 | 500 | |
| Propane | C3H8 | 11.07 | 1.8 | ZR | ZR | ZR | 1.67 | | | | | 1000 | | 1800 | | | | 2100 | 1000 | 1800 | |
| Propane-1,2-diol, total | C3H8O2 | | NA | 10.000 | NA | NA | | 150 | | 474 | | | | | | | | | | | |
| Propene | C3H6 | 9.73 | 1 | 1.400 | 2 | ZR | | | | | | | | | | | | | | | |
| Propionaldehyde | C3H6O | 9.95 | 2 | 1.685 | 2 | ZR | | | | | | | | | | | | | | | |
| Propionic acid | C3H6O2 | 10.24 | NA | 8.000 | ZR | ZR | 15 | 10 | 46 | 31 | 15 | 10 | 45 | 30 | | | | ND | | | |
| Propyl acetate, n- | C5H10O2 | 10.04 | 4 | 2.500 | ZR | ZR | 250 | 200 | 1060 | 849 | 250 | 200 | 1050 | 840 | | | | 1700 | 200 | 840 | |
| Propylene dinitrate | C3H6N2O6 | 11 | NA | ZR | NA | NA | 0.2 | 0.2 | 1.4 | 1.4 | | | | | | | | | | | |
| Propylene oxide | C3H6O | 10.22 | 2 | 7.000 | 1 | ZR | | 5 | | 12 | | | | | | | | 400 | 100 | 240 | |
| Propyleneimine | C3H7N | 9 | 1 | 1.300 | 1.5 | 1.5 | | | | | | 2 | | 5 | | | | 100 | 2 | 5 | |
| Pyridine | C5H5N | 9.25 | 0.7 | 0.750 | 0.8 | ZR | 10 | 5 | 33 | 16 | | 5 | | 15 | | | | 1000 | 5 | 15 | |
| Pyridylamine 2- | C5H6N2 | 9 | NA | 0.800 | NA | ZR | 2 | 0.5 | 7.8 | 2 | | 0.5 | | 2 | | | | 5 | 0.5 | 2 | |
| Silane | SiH4 | 11 | NA | ZR | NA | NA | 1 | 0.5 | 1.3 | 0.67 | | 5 | | 7 | | | | ND | | | |
| Sodium fluoroacetate | C2H2O2FNa | 11 | NA | ZR | NA | NA | | | 0.15 | 0.05 | | | | | | | | | | | |
| Styrene | C8H8 | 8.4 | 0.42 | 0.440 | 1 | 0.45 | 250 | 100 | 1080 | 430 | 100 | 50 | 425 | 215 | | | | 700 | 100 | | |
| Sulphur dioxide | SO2 | 12.3 | 1.3 | ZR | ZR | ZR | 5 | 2 | 13 | 5.3 | 3 | 2 | 13 | 5 | | | | 100 | 5 | 13 | |
| Sulphur hexafluoride | SF6 | 19.3 | NA | ZR | ZR | ZR | 1250 | 1000 | 7590 | 6070 | | 1000 | | 6000 | | | | ND | 1000 | 6000 | |
| Sulphur tetrafluoride | SF4 | 12.63 | NA | ZR | ZR | ZR | 0.3 | 0.1 | 1.3 | 0.45 | 0.1 | | 0.4 | | | | | ND | | | |
| Sulphuric acid | | | | | | | | | | | | | | | | | | | | | |

|  | | Ionisation Potential | PID response factors | | | | LEL | EH40 safety thresholds | | | | NIOSH Safety Thresholds | | | | | | OSHA | |
|---|-----------|----------------------|----------------------|-------|------|------|------|------------------------|----------|---------|-------------|-------------------------|----|-----|----|-----|---------|---------|-------|
| | | | IP | 11.7 | 10.6 | 10.2 | | 8.4 | ppm STEL | ppm TWA | mg.m-3 STEL | mg.m-3 TWA | ST | REL | ST | REL | Ceiling | Ceiling | IDLH |
| Gas/Volatile (VOC) | Formula | | | | | | | | | | | | | | | | | | |
| Tetrabromoethane, 1,1,2,2- | C2H2Br4 | 10 | NA | 2.000 | NA | NA | | | | | | | | | | | | | |
| Tetracarbonylnickel | NiC4O4 | 8.28 | NA | 1.000 | NA | NA | | | | | | | | | | | | 0.001 | 0.007 |
| Tetrachloro-1,2-difluoroethane, 1,1,2,2- | C2Cl4F2 | 11.3 | NA | ZR | ZR | ZR | | | | | | | | | | | | 500 | 4170 |
| Tetrachloro-1-fluoroethane, 1,1,2,2- | C2HCl4F | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrachloro-2,2-difluoroethane, 1,1,1,2- | C2Cl4F2 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | 500 | 4170 |
| Tetrachloro-2-fluoroethane, 1,1,1,2- | C2HCl4F | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrachloroethane, 1,1,1,2- | C2H2Cl4 | 11.1 | 0.6 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrachloroethane, 1,1,2,2- | C2H2Cl4 | 11.1 | 0.2 | ZR | ZR | ZR | | | | | | | | | | | | 100 | 5 |
| Tetrachloroethylene | C2Cl4 | 9.326 | 0.31 | 0.700 | 1 | 0.69 | | | | | | | | | | | | 150 | 100 |
| Tetrachloronaphthalenes, all isomers | C10H4Cl4 | 8.5 | NA | 1.000 | NA | NA | | | | | | | | | | | | | |
| Tetraethyl orthosilicate | C8H20O4Si | 9.8 | 0.2 | 2.000 | 1 | ZR | | | | | | | | | | | | 700 | 100 |
| Tetraethyllead | C8H20Pb | 11.1 | 0.2 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrafluoroethane, 1,1,1,2- | C2H2F4 | 11 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrafluoroethane, 1,1,2,2- | C2H2F4 | 11 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrafluoroethylene | C2F4 | 10.12 | 1 | 1.000 | NA | ZR | | | | | | | | | | | | | |
| Tetrafluoromethane | CF4 | 15.3 | ZR | ZR | ZR | ZR | | | | | | | | | | | | | |
| Tetrahydrofuran | C4H8O | 9.41 | 1 | 1.553 | 1.9 | ZR | | | | | | | | | | | | 2000 | 200 |
| Tetramethyl orthosilicate | C4H12O4Si | 11 | NA | ZR | NA | NA | | | | | | | | | | | | | |
| Tetramethyl succinonitrile | C8H12N2 | | NA | 1.000 | NA | NA | | | | | | | | | | | | | |
| Therminol | C7H8 | | 0.51 | 1.000 | 0.9 | 0.54 | | | | | | | | | | | | | |
| Thionyl chloride | SOCl2 | 10.96 | NA | ZR | NA | NA | | | | | | | | | | | | | |
| Toluene | C7H8 | 8.82 | 0.51 | 0.514 | 0.54 | ZR | 2.22 | | | | | | | | | | | 150 | 100 |
| Toluene-2,4-diisocyanate | C9H6N2O2 | 8.82 | 2 | 1.600 | 2 | ZR | | | | | | | | | | | | | |
| Toluenesulphonyl chloride, p- | C7H7SO2Cl | | NA | 3.000 | NA | NA | | | | | | | | | | | | | |
| Toluidine, o- | C7H9N | 7.4 | 1 | 0.500 | NA | ZR | | | | | | | | | | | | | |
| Tributyl phosphate | C12H27O4P | | NA | 5.000 | NA | NA | | | | | | | | | | | | | |
| Tributylamine | C12H27N | 7.4 | NA | 1.000 | NA | NA | | | | | | | | | | | | | |
| Trichloro-1,1-difluoroethane, 1,2,2- | C2HCl3F2 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trichloro-1,2-difluoroethane, 1,1,2- | C2HCl3F2 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trichloro-2,2-difluoroethane, 1,1,1- | C2HCl3F2 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trichloro-2-fluoroethane, 1,1,2- | C2H2Cl3F | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trichlorobenzene 1,2,4- | C6H3Cl3 | 9.04 | NA | 0.550 | NA | NA | | | | | | | | | | | | 5 | ND |
| Trichloroethane, 1,1,1- | C2H3Cl3 | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | 200 | 100 |
| Trichloroethane, 1,1,2- | C2H3Cl3 | 11 | 1 | ZR | ZR | ZR | | | | | | | | | | | | 10 | 45 |
| Trichloroethylene | C2HCl3 | 9.45 | 0.43 | 0.650 | 0.62 | ZR | | | | | | | | | | | | 150 | 100 |
| Trichlorofluoromethane | CCl3F | 11.77 | NA | ZR | ZR | ZR | | | | | | | | | | | | 1250 | 1000 |
| Trichloronitromethane | CCl3NO2 | 13 | NA | ZR | NA | NA | | | | | | | | | | | | 0.3 | 0.1 |
| Trichlorophenoxyacetic acid, 2,4,5- | C8H5O3Cl3 | | NA | 1.000 | NA | NA | | | | | | | | | | | | | |
| Trichloropropane 1,2,3- | C3H5Cl3 | 11 | NA | ZR | ZR | ZR | | | | | | | | | | | | 75 | 50 |
| Trichlorotrifluoroethane, 1,1,1- | C2Cl3F3 | 11.5 | 2 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trichlorotrifluoroethane, 1,1,2- | C2Cl3F3 | 11.99 | 2 | ZR | ZR | ZR | | | | | | | | | | | | 1250 | 1000 |
| Triethylamine | C6H15N | 7.5 | 0.65 | 0.900 | 0.95 | 1.5 | | | | | | | | | | | | 4 | 2 |
| Trifluoroethane, 1,1,1- | C2H3F3 | 12.9 | 34 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trifluoroethane, 1,1,2- | C2H3F3 | 12.9 | 34 | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trifluoroethanol, 2,2,2- | C2H3F3O | 13 | 34 | ZR | NA | ZR | | | | | | | | | | | | | |
| Trifluoromethane | CHF3 | 13.86 | NA | ZR | ZR | ZR | | | | | | | | | | | | | |
| Trimethylamine | C3H9N | 7.82 | 0.3 | 0.500 | 1 | 0.36 | | | | | | | | | | | | 15 | 10 |
| Trimethylbenzene mixtures | C9H12 | 8.41 | 0.3 | 0.340 | 0.36 | 1 | | | | | | | | | | | | | |
| Trimethylbenzene, 1,3,5- | C9H12 | 8.39 | 0.32 | 0.340 | 0.36 | 1 | | | | | | | | | | | | 100 | 250 |
| Trinitrotoluene 2,4,6- | C7H5N3O6 | 10.59 | NA | ZR | NA | NA | | | | | | | | | | | | | |
| Turpentine | C10H16 | 8 | 1 | 0.600 | 1 | 1 | | | | | | | | | | | | 150 | 100 |
| TVOC | | 10 | 1 | 1.000 | | | | | | | | | | | | | | | |
| Undecane, n- | C11H24 | 9.56 | 1 | 0.920 | 1.2 | ZR | | | | | | | | | | | | | |
| Vinyl acetate | C4H6O2 | 9.19 | 1 | 1.100 | 2 | ZR | | | | | | | | | | | | 20 | 10 |
| Vinyl bromide | C2H3Br | 9.8 | NA | 1.000 | 2 | ZR | | | | | | | | | | | | | |
| Vinyl chloride | C2H3Cl | 9.99 | 0.6 | 2.100 | 2 | ZR | | | | | | | | | | | | | |
| Vinyl-2-pyrrolidinone, 1- | C6H9NO | 9 | 0.92 | 0.900 | 1 | ZR | | | | | | | | | | | | | |
| Xylene mixed isomers | C8H10 | 8.56 | NA | 0.430 | NA | ZR | | | | | | | | | | | | 100 | 50 |
| Xylene, m- | C8H10 | 8.56 | 0.4 | 0.440 | 0.5 | ZR | | | | | | | | | | | | 100 | 50 |
| Xylene, o- | C8H10 | 8.56 | 0.69 | 0.600 | 0.57 | ZR | | | | | | | | | | | | 100 | 50 |
| Xylene, p- | C8H10 | 8.44 | 0.62 | 0.460 | 1 | 4 | | | | | | | | | | | | 100 | 50 |
| Xylidine, all | C8H11N | 7.5 | NA | 0.700 | NA | ZR | | | | | | | | | | | | 10 | 2 |
| Xylidine, all | C8H11N | 7.5 | NA | 0.700 | NA | ZR | | | | | | | | | | | | 10 | 2 |