

OXYGENATED SOLVENTS REGISTERED UNDER REACH - KEY DATA

| Substances | CAS # | EC # | CLP classification - Health Hazard only (Note 1) | Basis for Classification (Note 2) | Volatility Band ECETOC TRA Vapour Pressure Bands (VP at 20 deg C (kPa): High: >10 Medium: >0.5 - 10 Low: <= 0.5 Negligible: <0.0001 | Molecular Weight | Example National OELs (mg/m3) (Note 3) n/a = not assigned | | DNEL inhalation worker (mg/m3) n/a = not assigned | | | |
|--|------------|-----------|---|--------------------------------------|---|------------------|--|-----------------------------------|--|-----------------------------------|---------------------------------|---------------------------------|
| | | | | | | | 8hr TWA | 15 min - STEL | Systemic effects Long term | Systemic effects Acute/Short term | Local effects Long term | Local Effects Acute/Short term |
| OSPA SOLVENTS | | | | | | | | | | | | |
| KETONES | | | | | | | | | | | | |
| 4-methylpentan-2-one (MIBK) | 108-10-1 | 203-550-1 | Eye Irrit. 2 (H319); Acute Tox. 4 (H332); STOT SE 3 (H336) | Harmonised | 2.64 (Medium) | 100,16 | EU: 83 | EU: 208 | 83 | 208 | 83 | 208 |
| Butanone, Ethyl Methyl Ketone (MEK) | 78-93-3 | 201-159-0 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 10 - 12 (High) | 72.11 | EU: 600 | EU: 900 | 600 | n/a | n/a | n/a |
| Methyl IsoButyl Carbinol (MIBC) | 108-11-2 | 203-551-7 | STOT SE 3 (H335) | Harmonised | 0.396 (Low) | 102.17 | n/a | n/a | 83 | 208 | 83 | 104 |
| Methyl Amyl Ketone | 110-43-0 | 203-767-1 | Acute Tox. 4 (H302, H332); STOT SE 3 (H336) | Industry Recommendation | Low | 114.19 | EU: 238 | EU: 475 | 394,25 | 1516 | n/a | n/a |
| Acetone | 67-64-1 | 200-662-2 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 24 (High) | 58,08 | EU: 1210 | EU: n/a | 1216 | No inhalation hazard identified | No inhalation hazard identified | 2420 |
| ALCOHOLS | | | | | | | | | | | | |
| Isopropyl Alcohol (IPA) | 67-63-0 | 200-661-7 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 4 - 6 (Medium) | 60.1 | D-AGS: 500 F: n/a UK: 999 | D-AGS: 1000 F: 980 UK: 1250 | 500 | n/a | n/a | n/a |
| n-butanol (n-BuOH) | 71-36-3 | 200-751-6 | Skin Irrit. 2 (H315); Eye Dam. 1 (H318); Acute Tox. 4 (H302); STOT SE 3 (H335, H336) | Harmonised | <10 (Medium) | 74.12 | D-AGS: 310 F: n/a UK: n/a | D-AGS: 310 F: 150 UK: 154 | No inhalation hazard identified | No inhalation hazard identified | 310 | No inhalation hazard identified |
| Butan-2-ol (SBA) | 78-92-2 | 201-158-5 | Skin Irrit. 2 (H315); Eye Dam. 1 (H318); STOT SE 3 (H335, H336) | Harmonised | ± 1.6 (Medium) | 74.12 | D-AGS: n/a F: 300 UK: 308 | D-AGS: n/a F: n/a UK: n/a | 600 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| n-Propanol (n-ProH) | 71-23-8 | 200-746-9 | Eye Irrit. 1 (H318); STOT SE 3 (H336) | Harmonised | ± 2.8 (Medium) | 60.1 | D-AGS: n/a F: 500 UK: 500 | D-AGS: n/a F: n/a UK: 625 | 268 | 1723 | n/a | n/a |
| ESTERS | | | | | | | | | | | | |
| ethylacetate (ETAC) | 141-78-6 | 205-500-4 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 9.8 (Medium) | 88.11 | EU: 734 | EU: 1468 | 734 | 1468 | 734 | 1468 |
| n-Propyl Acetate (n-PrAc) | 109-60-4 | 203-686-1 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 3 - 5 (Medium) | 102.13 | D-AGS: 420 F: 840 UK: 849 | D-AGS: 840 F: n/a UK: 1060 | No inhalation hazard identified | No inhalation hazard identified | 420 | 840 |
| n-butyl acetate (n-BuAc) | 123-86-4 | 204-658-1 | STOT SE 3 (H336) | Harmonised | ± 1.5 (Medium) | 116.16 | D-AGS: 300 F: 710 UK: 724 | D-AGS: 600 F: 940 UK: 966 | 300 | 600 | 300 | 600 |
| Isobutyl acetate (iBuAc) | 110-19-0 | 203-745-1 | STOT SE 3 (H336) [EUH066 skin defatting statement] | Harmonised + Industry Recommendation | 2.1 (Medium) | 116.16 | D-AGS: 300 F: 710 UK: 724 | D-AGS: 600 F: 940 UK: 903 | 300 | 600 | 300 | 600 |
| ACETALS | | | | | | | | | | | | |
| Dimethoxymethane | 109-87-5 | 203-714-2 | Eye Irrit. 2 (H319); Skin Irrit. 2 (H315); STOT SE 3 (H335) | Industry Recommendation | 40 (High) | 76.08 | D-AGS: 500 F: 1000 UK: 1000 | D-AGS: 1000 F: n/a UK: 1250 | 126.6 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Diethoxymethane | 462-95-3 | 207-330-6 | Eye Irrit. 2 (H319); Skin Irrit. 2 (H315); STOT SE 3 (H335) | Industry Recommendation | 0.83 (Medium) | 104.2 | n/a | n/a | 42.7 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Dipropoxymethane | 505-84-0 | 208-021-9 | Acute Tox. 4 (H302) | Industry Recommendation | < 2 (Medium) | 132.2 | n/a | n/a | 335 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 1,1'-[Methylenebis(oxy)]dibutane | 2568-90-3 | 219-909-0 | Aquat. Chronic 3 (H412); Skin Irrit. 2 (H315) | Industry Recommendation | 0.079 (Low) | 160.3 | n/a | n/a | 126.63 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 2,5,7,10-Tetraoxaundecane | 4431-83-8 | 224-631-8 | Not classified | Industry Recommendation | 0.022 at 25 deg C (Low) | 164.2 | n/a | n/a | 11.75 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 1,3-Dioxolane | 646-06-0 | 211-463-5 | Eye Irrit. 2 (H319); Repr. 1B (H360) | Industry Recommendation | 10.1 (High) | 74.1 | D-AGS: 50 B: 20 UK: n/a | D-AGS: 100 F: n/a UK: n/a | 3,31 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 3,3'-[Methylenebis(oxyethylene)]bisheptane | 22174-70-5 | 244-815-1 | Aquat. Chronic 4 (H413) | Industry Recommendation | < 0.01 (Low) | 272.4 | n/a | n/a | 13.2 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 1,3-dioxan-5-ol | 4740-78-7 | 911-694-8 | Eye Irrit. 2 (H319) | Industry Recommendation | 0.03 (Low) | 104.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| 1,3-dioxolan-4-ylmethanol | 5464-28-8 | 911-694-8 | Eye Irrit. 2 (H319) | Industry Recommendation | 0.03 (Low) | 104.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| 1,1-dimethoxyethane | 534-15-6 | 208-589-8 | Not classified | Harmonised | 18.27 (High) | 90.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| Ethyl 2-methyl-1,3-dioxolane-2-acetate | 6413-10-1 | 229-114-0 | Not classified | Industry Recommendation | 0.108 (Low) | 174.2 | n/a | n/a | 23.5 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| 4,8-Dimethyl-2,5,7,10-tetraoxaundecane | 59039-15-5 | 813-999-0 | Not classified | Industry Recommendation | 0.0069 (Low) | 192.3 | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| GLYCOL ETHERS/ESTERS | | | | | | | | | | | | |
| E-series | | | | | | | | | | | | |

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|--|-------------|-----------|---|--------------------------------------|----------------------------|--------|--|---|---------------------------------|-----------------------------------|---------------------------------|---------------------------------|
| Ethylene glycol monomethyl ether (EGME) | 109-86-4 | 203-713-7 | Acute Tox. 4 (H302, H312, H332); Repr. 1B (H360FD) | Harmonised | 1.2 (Medium) | 76.09 | EU: 3.13 | EU: n/a | 0.31 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Diethyleneglycol monomethyl ether (DEGME) | 111-77-3 | 203-906-6 | Repr. 1B (H360D) | Harmonised | 0.024 (Low) | 120.15 | EU: 50.1 | EU: n/a | 50.1 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Triethylene glycol monomethyl ether (TEGME) | 112-35-6 | 203-962-1 | Not classified | Industry Recommendation | 0.001 at 25 deg C (Low) | 164.20 | D-AGS: 50 EU: n/a | D-AGS: 100 EU: n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Methoxytetraethylene glycol (TetraEGME) | 23783-42-8 | 245-883-5 | Not classified | Industry Recommendation | 0.0001 (Low) | 208.25 | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | n/a |
| Tetra-PentaEGME (Reaction mass) | - | 915-389-0 | Not classified ⁹ | Industry Recommendation | 0.0001 (Low) | - | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethanol, 2-methoxy-, manuf. of, by-products from (Me-H) | 161907-79-5 | 310-289-8 | Not classified (80%); Eye Irrit. 2 (H319) (20%) | Industry Recommendation | n/a | - | n/a | n/a | n/a | n/a | n/a | n/a |
| Ethylene Glycol dimethyl ether (EGDME) | 110-71-4 | 203-794-9 | Repr. 1B (H360FD); Acute Tox. 4 (H332) | Harmonised | 6.6 (Medium) | 90.12 | n/a | n/a | 3,1 | n/a | n/a | n/a |
| Diethylene glycol dimethyl ether (DEGDME) | 111-96-6 | 203-924-4 | Repr. 1B (H360FD) | Harmonised | 0.06 (Low) | 134.17 | D-AGS: 28 EU: n/a | D-AGS: 224 EU: n/a | 26,8 | n/a | n/a | n/a |
| Triethylene glycol dimethyl ether (TEGDME) | 112-49-2 | 203-977-3 | Repr. 1B (H360D) | Harmonised | 0.0027 (Low) | 178.23 | n/a | n/a | 80,4 | n/a | n/a | n/a |
| Tetraethylene glycol dimethyl ether (TetraGLyme) | 143-24-8 | 205-594-7 | Repr. 1B (H360FD) | Harmonised | 0.000099 (Low) | 222.28 | n/a | n/a | 22 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol ethyl ether (EGEE) | 110-80-5 | 203-804-1 | Acute tox 4 (H302); Acute Tox. 3 (H331); Repr. 1B (H360FD) | Harmonised | 0.51 (Medium) | 90.12 | EU: 8 | EU: n/a | 0.083 | n/a | n/a | n/a |
| Diethylene glycol ethyl ether (DEGEE) | 111-90-0 | 203-919-7 | Not classified | Industry Recommendation | 0.0168 at 25 deg C (Low) | 134.17 | D-AGS: 35 (Note 4) F: n/a UK: n/a | D-AGS: 70 (Note 4) F: n/a UK: n/a | No inhalation hazard identified | No inhalation hazard identified | 30 | No inhalation hazard identified |
| Triethylene Glycol Monoethyl Ether (TEGEE) | 112-50-5 | 203-978-9 | Not classified | Industry Recommendation | 0.0015 (Low) | 178.23 | n/a | n/a | 169 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethanol, 2-ethoxy-, manufacture of, by-products from (Et-H) | 161907-78-4 | 310-288-2 | Skin Corr. 1 (H314); Eye Dam. 1 (H318) | Industry Recommendation | 0.001 (Low) | - | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Tetraethylene glycol monoethyl ether (TetraEGEE) | 5650-20-4 | 227-090-6 | Eye Irrit. 2 (H319) | Industry Recommendation | n/a | 222.28 | n/a | n/a | n/a | n/a | n/a | n/a |
| Ethylene glycol diethyl ether (EGDEE) | 629-14-1 | 211-076-1 | Eye Irrit. 2 (H319); Repr. 1A (H360D) | Harmonised | n/a | 118.17 | n/a | n/a | n/a | n/a | n/a | n/a |
| Diethylene glycol diethyl ether (DEGDDEE) | 112-36-7 | 203-963-7 | Not classified | Industry Recommendation | 0.051 (Low) | 162.23 | n/a | n/a | 50,05 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol n-propyl ether (EGnPE) | 2807-30-9 | 220-548-6 | Acute Tox. 4 (H312); Eye Irrit. 2 (H319) | Harmonised | 0.64 at 25 deg C (Medium) | 104.15 | D-AGS: 43 EU: n/a | D-AGS: 86 EU: n/a | 36 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol monoisopropyl ether (EGiPE) | 109-59-1 | 203-685-6 | Acute Tox. 4 (H312, H332); Eye Irrit. 2 (H319). | Harmonised | 0.38 (Low) | 104.15 | D-AGS: 44 F: 105 UK: n/a | D-AGS: 88 F: n/a UK: n/a | 72 | 180 | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol butyl ether (EGBE) | 111-76-2 | 203-905-0 | Acute Tox. 3 (H331); Skin Irrit. 2 (H315); Eye Irrit. 2 (H319) | Harmonised | 0.117 (Low) | 118.17 | EU: 98 | EU: 246 | 98 | 1091 | No inhalation hazard identified | 246 |
| Diethylene glycol butyl ether (DEGBE) | 112-34-5 | 203-961-6 | Eye Irrit. 2 (H319) | Harmonised | 0.0029 at 25 deg C (Low) | 162.23 | D-AGS: 67 F: 67.5 UK: 67.5 | D - AGS: 100 F: 101.2 UK: 101.2 | 67,5 | No inhalation hazard identified | 67,5 | 101,2 |
| Triethylene glycol monobutyl ether (TEGBE) | 143-22-6 | 205-592-6 | Eye Dam. 1 (H318) | Harmonised | Negligible | 206.28 | n/a | n/a | 24 | 96 | 30.5 | 96 |
| Tetraethylene glycol monobutyl ether (TetraEGBE) | 1559-34-8 | 216-322-1 | Eye Irrit. 2 (H319) | Industry Recommendation | 0.000015 at 25 deg C (Low) | 250.33 | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| TEGBE-TetraEGBE (Reaction mass) | - | 907-996-4 | Eye Dam. 1 (H318) | Industry Recommendation | 0.000014 (Low) | - | n/a | n/a | 195 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethanol, 2-butoxy-, manufacture of, by-products from (TEGBE-H / Butyl heavies) | 161907-77-3 | 310-287-7 | Eye Dam. 1 (H318); Eye Irrit. 2 (H319) | Industry Recommendation | n/a | - | n/a | n/a | n/a | n/a | n/a | n/a |
| Poly(ethylene glycol) butyl ether (NLPBuH) | 9004-77-7 | 500-012-0 | Not classified | Industry Recommendation | 0.00033 at 25 deg C (Low) | 206 | n/a | n/a | 195 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol butyl ether acetate (EGBEA) | 112-07-2 | 203-933-3 | Acute Tox. 4 (H302, H312, H332) | Industry Recommendation (Note 3) | 0.05 (Low) | 160.21 | EU: 133 | EU: 333 | 133 | No inhalation hazard identified | No inhalation hazard identified | 333 |
| Diethylene glycol butyl ether acetate (DEGBEA) | 124-17-4 | 204-685-9 | Eye irritant cat 2 (H319) | Industry Recommendation | 0.0005 (Low) | 204.26 | D-AGS: 67 (Note 4) F: n/a UK: n/a | D-AGS: 100 (Note 4) F: n/a UK: n/a | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol dibutyl ether (EGDBE) | 112-48-1 | 203-976-8 | Eye Irrit. 2 (H319) | Industry Recommendation | n/a | 174.28 | n/a | n/a | n/a | n/a | n/a | n/a |
| Diethylene glycol dibutyl ether (DEGDDBE) | 112-73-2 | 204-001-9 | Not classified | Industry Recommendation | 0.00026 (Low) | 218.33 | n/a | n/a | 90 | Low hazard (no threshold derived) | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol hexyl ether (EGHE) | 112-25-4 | 203-951-1 | Skin Corr. 1B (H314); Acute Tox. 4 (H302, H 312); Eye Dam. 1 (H318); Acute Tox. 3 (H 311) | Harmonised + Industry Recommendation | 0.01 (Low) | 146.23 | n/a | n/a | 18.4 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Diethylene glycol monohexyl ether (DEGHE) | 112-59-4 | 203-988-3 | Acute Tox. 4 (H312); Eye Dam. 1 (H318) | Harmonised | 0.0002 (Low) | 190.28 | n/a | n/a | 16.3 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Ethylene glycol monophenyl ether (EGPhE) | 122-99-6 | 204-589-7 | Acute Tox. 4 (H302); Eye Irrit. 2 (H319) | Harmonised | 0.001 (Low) | 138.16 | D-AGS: 5.7 EU: n/a | D-AGS: 5.7 EU: n/a | 5.7 | No inhalation hazard identified | 5.7 | No inhalation hazard identified |
| P-series | | | | | | | | | | | | |
| Propylene glycol methyl ether (PGME) ⁶ | 107-98-2 | 203-539-1 | STOT SE 3 (H336) | Harmonised | 1.1 (Medium) | 90.12 | EU: 375 | EU: 568 | 369 | 553,5 | No inhalation hazard identified | 553,5 |

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|--|-------------|------------------------|---|-------------------------|-------------------------|---------|---------------------------------|---------------------------------|------|---------------------------------|---------------------------------|---------------------------------|
| 1-Propylene glycol 2-methyl ether (1PG2ME) ⁶ | 1589-47-5 | 216-455-5 | Skin Irrit. 2 (H315); Eye Dam. 1 (H318); STOT SE 3 (H335); Repr. 1B (H360D) | Harmonised | n/a | 90.121 | D-AGS: 19 EU: n/a | D-AGS: 38 EU: n/a | n/a | n/a | n/a | n/a |
| Dipropylene glycol monomethyl ether (DPGME) | 34590-94-8 | 252-104-2 | Not classified | Industry Recommendation | 0.0371 (Low) | 148.2 | EU: 308 | EU: n/a | 308 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Tripropylene glycol monomethyl ether (TPGME) | 25498-49-1 | 247-045-4 | Not classified | Industry Recommendation | 0.0017 (Low) | 206.28 | n/a | n/a | 187 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Dipropylene glycol dimethyl ether (DPGDME) | 111109-77-4 | 404-640-5 601-045-4 | Not classified | Industry Recommendation | n/a | 324.45 | n/a | n/a | 133 | n/a | n/a | n/a |
| Propylene glycol methyl ether acetate (PGMEA) ⁷ | 108-65-6 | 203-603-9 | Not classified | Harmonised | 0.36 (Low) | 132.16 | EU: 275 | EU: 550 | 275 | No inhalation hazard identified | No inhalation hazard identified | 550 |
| 1-Propylene glycol-2-methyl ether acetate (1PG2MEA) ⁷ | 70657-70-4 | 274-724-2 | STOT SE 3 (H335); Repr. 1B (H360D) | Harmonised | n/a | 132.158 | D-AGS: 28 EU: n/a | D-AGS: 56 EU: n/a | n/a | n/a | n/a | n/a |
| Dipropylene glycol methyl ether acetate (DPGMEA) | 88917-22-0 | 618-219-0 406-880-6 | Acute Tox. 4 (H302); Eye Irrit. 2 (H319); Skin Irrit. 2 (H315); STOT SE 3 (H335) | Industry Recommendation | 0.01 (Low) | 190.237 | n/a | n/a | 1556 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Propylene glycol ethyl ether (PGEE) | 1569-02-4 | 216-374-5 | STOT SE 3 (H336); Eye Irrit. 2 (H319) | Harmonised | 1 at 25 deg C (Medium) | 104.15 | D-AGS: 220 F: n/a UK: n/a | D-AGS: 440 F: n/a UK: n/a | 211 | 500 | No inhalation hazard identified | No inhalation hazard identified |
| Dipropylene glycol ethyl ether (DPGEE) | 30025-38-8 | 405-820-6 | Not classified | Industry Recommendation | 0.057 at 25 deg C (Low) | 162.227 | n/a | n/a | n/a | n/a | n/a | n/a |
| Propylene glycol ethyl ether acetate (PGEEA) | 54839-24-6 | 259-370-9 | STOT SE 3 (H336) | Harmonised | ± 0.2 (Low) | 146.18 | D-AGS: 120 F: n/a UK: n/a | D-AGS: 240 F: n/a UK: n/a | 152 | 2366 | No inhalation hazard identified | No inhalation hazard identified |
| Propylene Glycol n-propyl Ether (PGnPE) | 1569-01-3 | 216-372-4 | Eye Irrit. 2 (H319) | Industry Recommendation | ± 0.3 (Low) | 118.17 | n/a | n/a | 263 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Dipropylene glycol n-propyl ether (DPGnPE) | 29911-27-1 | 249-949-4 | Not classified | Industry Recommendation | 0.01 (Low) | 176.253 | n/a | n/a | 84 | n/a | n/a | n/a |
| Tripropylene glycol n-propyl ether (TPGnPE) | 96077-04-2 | 629-381-7 | Eye Irrit. 2 (H319) | Industry Recommendation | n/a | 234.332 | n/a | n/a | n/a | n/a | n/a | n/a |
| Propylene glycol butyl ether (PGBE) | 5131-66-8 | 225-878-4 | Skin Irrit. 2 (H315); Eye Irrit. 2 (H319) | Harmonised | 0.139 (Low) | 132.2 | n/a | n/a | 147 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Dipropylene glycol n-butyl ether (DPGBE) | 29911-28-2 | 249-951-5 | Not classified | Industry Recommendation | 0.004 (Low) | 190.28 | n/a | n/a | 189 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Tripropylene glycol monobutyl ether (TPGBE) | 55934-93-5 | 259-910-3 | Not classified | Industry Recommendation | 0.0002 (Low) | 248.36 | n/a | n/a | 420 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Tripropylene glycol butyl ether highers (TPGBE-H) | 9003-13-8 | 500-003-1 | Eye Irrit. 2 (H319); Skin Irrit. 2 (H315); Acute Tox. 4 (H302); | Industry Recommendation | 0.000076 (Low) | - | n/a | n/a | 2.9 | n/a | n/a | n/a |
| Propylene glycol isobutyl ether (PGiBE) ⁸ | 23436-19-3 | 245-663-9 | Eye Irrit. 2A (H319); Skin Irrit. 2 (H315); STOT SE 3 (H335) | Industry Recommendation | n/a | 132.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| Propylene glycol tert-butyl ether (PGtBE) ⁸ | 57018-52-7 | 406-180-0 611-448-7 | Eye Dam. 1 (H318) | Harmonised | n/a | 132.2 | n/a | n/a | n/a | n/a | n/a | n/a |
| Dipropylene Glycol tert-Butyl Ether (DPGtBE) | 132739-31-2 | 683-624-1 | Skin Irrit. 2 (H315); Eye Irrit. 2 (H319); STOT SE 3 (H335) | Industry Recommendation | n/a | 190.28 | n/a | n/a | n/a | n/a | n/a | n/a |
| Propylene glycol phenyl ether (PGPhE) | 770-35-4 | 212-222-7 | Eye Irrit. 2 (H319) | Industry Recommendation | 0.001 (Low) | 152.19 | n/a | n/a | 25,7 | n/a | n/a | n/a |

SOME NON-OSPA SOLVENTS OF INTEREST

| ALCOHOLS | | | | | | | | | | | | |
|--|------------|-----------|---|-------------------------|--------------------------|--------|---|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Methanol | 67-56-1 | 200-659-6 | Acute Tox. 3 (H301, H311, H331); STOT SE 1 (H370) | Harmonised | >10 (High) | 32.04 | EU: 260 | n/a | 260 | 260 | 260 | 260 |
| Ethanol | 64-17-5 | 200-578-6 | Not classified for human health | Harmonised | 5.7 (Medium) | 46.07 | D-AGS: 960 F: 1900 UK: 1920 | D-AGS: 1920 F: 9500 UK: n/a | 950 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| tert-Butanol | 75-65-0 | 200-889-7 | Eye Dam. 2 (H319); Acute Tox. 4 (H332); STOT SE 3 (H335) | Harmonised | 5.4 at 25 deg C (Medium) | 74.12 | D-AGS: 62 F: 300 UK: 308 | D-AGS: 248 F: n/a UK: 462 | 2,7 | 214 | No inhalation hazard identified | No inhalation hazard identified |
| Hexanol (hexan-1-ol) | 111-27-3 | 203-852-3 | Acute Tox. 4 (H302); | Harmonised | 0.36 at 38 deg C (Low) | 102.17 | D-AGS: 210 (Note 4) F: n/a UK: n/a | D-AGS: 210 (Note 4) F: n/a UK: n/a | 99 | No inhalation hazard identified | 210 | No inhalation hazard identified |
| Cyclohexanol | 108-93-0 | 203-630-6 | Skin Irrit. 2 (H315); Acute Tox. 4 (H302, H332); STOT SE 3 (H335) | Harmonised | 0.17 at 32 deg C (Low) | 100.16 | D: n/a F: 200 UK: 208 | D: n/a F: 300 UK: n/a | 130 | n/a | n/a | n/a |
| Amyl Alcohol (1-pentanol) | 71-41-0 | 200-752-1 | Skin Irrit. 2 (H315); Acute Tox. 4 (H332); STOT SE 3 (H335) | Harmonised | 0.204 (Low) | 88.15 | n/a | n/a | No inhalation hazard identified | No inhalation hazard identified | 73,16 | 292 |
| Diacetone Alcohol (DAA) | 123-42-2 | 204-626-7 | Eye Irrit. 2 (H319) | Harmonised | 0.129 (Low) | 116.16 | D-AGS: 96 F: 240 UK: 241 | D-AGS: 192 F: n/a UK: 362 | 59,2 | No inhalation hazard identified | No inhalation hazard identified | 240 |
| 2,2,4-trimethyl-1,3-pentanediol mono(2-methylpropanoate) | 25265-77-4 | 246-771-9 | Not classified | Industry Recommendation | 0.0013 (Low) | 216.32 | n/a | n/a | 49 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |

KETONES

| | | | | | | | | | | | | |
|---|-----------|-----------|---|-------------------------|-------------------------|--------|---------------------------------|----------------------------------|-----|---------------------------------|---------------------------------|---------------------------------|
| Isophorone (3,5,5-trimethylcyclohex-2-enone) | 78-59-1 | 201-126-0 | Acute Tox. 4 (H302, H312); Eye Irrit. 2 (H319); STOT SE 3 (H335); Carc. 2 (H351) | Harmonised | 0.04 (Low) | 138.21 | D-AGS: 11 F: n/a UK: n/a | D-AGS: 22 F: 25 UK: 29 | 11 | 22 | 11 | 22 |
| Methyl iso Amyl ketone (5-methylhexan-2-one) | 110-12-3 | 201-126-0 | Acute Tox. 4 (H332); | Harmonised | 0.665 at 25 deg C (Low) | 114.19 | n/a | n/a | 95 | 818 | No inhalation hazard identified | No inhalation hazard identified |
| 2,6-dimethylheptan-4-one (DIBK) | 108-83-8 | 203-620-1 | STOT SE 3 (H335) | Harmonised | 0.225 (Low) | 142.24 | D-AGS: n/a F: 250 UK: 148 | D-AGS: n/a F: n/a UK: n/a | 53 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| ESTERS | | | | | | | | | | | | |
| Methyl acetate | 79-20-9 | 201-185-2 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 22.8 (High) | 74,08 | D-AGS: 610 F: 610 UK: 616 | D-AGS: 2440 F: 760 UK: 770 | 610 | No inhalation hazard identified | 305 | No inhalation hazard identified |
| 2,2,4-trimethyl-1,3-pentanediol diisobutyrate | 6846-50-0 | 229-934-9 | Not classified | Industry Recommendation | 0.0015 (Low) | 286,41 | n/a | n/a | 110 | No inhalation hazard identified | No inhalation hazard identified | No inhalation hazard identified |
| Isopropyl acetate (iPrAc) | 108-21-4 | 203-561-1 | Eye Irrit. 2 (H319); STOT SE 3 (H336) | Harmonised | 6 (Medium) | 102,13 | D-AGS: 420 F: 950 UK: n/a | D-AGS: 840 F: 1140 UK: 849 | 279 | 558 | 227 | No inhalation hazard identified |

Note 1: See Appendix 2 of BPG Managing health risks of solvent exposures for H phrase definitions

Note 2: Harmonised values are from Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

Note 3: EU and national limit values extracted from GESTIS: International Limit Values Database, hosted by IFA Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung

<http://www.dguv.de/ifa/gestis/gestis-internationale-grenzwerte-fuer-chemische-substanzen-limit-values-for-chemical-agents/index-2.jsp>

Note 4: An outdated Harmonised Classification exists for EGBEA which is still to be aligned with the EU Risk Assessment Report.

Note 5: Inhalable aerosol and vapour

Note 6: This is the main isomer, sometimes known as 2PG1ME. The minor isomer is 1PG2ME, CAS 1589-47-1

Note 7: This is the main isomer, sometimes known as 2PG1MEA. The minor isomer is 1PG2ME, CAS 70657-70-4

Note 8: None of these two minor isomers are registered under REACH.

Note 9: This substance can sometimes include caustic impurities that result in an overall classification of either "Eye Irrit. 2 (H319); Skin Irrit. 2 (H315)" or "Skin Corr. 1 (H314)" depending on the level present.