

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(oxymethylene)]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												

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 (H360DF)	Harmonised	0.0027 (Low)	178.23	n/a	n/a	80,4	n/a	n/a	n/a
Tetraethylene glycol dimethyl ether (Tetraglyme) (TetraEGDME)	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 (H360DF)	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 (DEGDDE)	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

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.