

## OXYGENATED SOLVENTS REGISTERED UNDER REACH - KEY DATA

Substances	CAS #	REACH Registration #	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: <0.00001	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	
<b>OSPA SOLVENTS</b>													
<b>KETONES</b>													
4-methylpentan-2-one (MIBK)	108-10-1	01-2119473980-30	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	01-2119457290-43	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	01-2119473979-13	STOT SE 3 (H335)	Harmonised	0.396 (Low)	102.17	n/a	n/a	83	208	83	104	
Methyl Amyl Ketone	110-43-0	01-2119902391-49	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	01-2119471330-49	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	
<b>ALCOHOLS</b>													
Isopropyl Alcohol (IPA)	67-63-0	01-2119457558-25	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	01-2119484630-38	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	01-2119475146-36	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	01-2119486761-29	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	
<b>ESTERS</b>													
ethylacetate (ETAC)	141-78-6	01-2119475103-46	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	01-2119484620-39	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	01-2119485493-29	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	01-2119488971-22	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	
<b>GLYCOL ETHERS/ESTERS</b>													
Ethylene glycol monomethyl ether (EGME)	109-86-4		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		Repr. 2 (H361d)	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		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	
Ethylene glycol ethyl ether (EGEE)	110-80-5		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	
Triethylene Glycol Monoethyl Ether (TEGEE)	112-50-5		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	

Ethylene glycol monoisopropyl ether (EGiPE)	109-59-1		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 n-propyl ether (EGnPE)	2807-30-9		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
Triethylene glycol monobutyl ether (TEGBE)	143-22-6		Eye Dam. 1 (H318)	Harmonised	Negligible	206.28	n/a	n/a	24	96	30.5	96
Ethylene glycol hexyl ether (EGHE)	112-25-4		Skin Corr. 1B (H314); Acute Tox. 4 (H302, H312); Eye Dam. 1 (H318); Acute Tox. 3 (H311)	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 monoethyl ether (DEGHE)	112-59-4		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		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
Dipropylene glycol methyl ether acetate (DPGMEA)	88917-22-0		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
Dipropylene glycol ethyl ether (DPGEE)	30025-38-8		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
Dipropylene glycol n-propyl ether (DPGnPE)	29911-27-1		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		Eye Irrit. 2 (H319)	Industry Recommendation	n/a	234,332	n/a	n/a	n/a	n/a	n/a	n/a
Propylene glycol tert-butyl ether (PGTBE)	57018-52-7		Eye Dam. 1 (H318)	Harmonised	n/a	132,201	n/a	n/a	n/a	n/a	n/a	n/a
Dipropylene Glycol tert-Butyl Ether (DPGTBE)	132739-31-2		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
1-Propylene glycol 2-methyl ether (1PG2ME)	1589-47-5		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
1-Propylene glycol-2-methyl ether acetate (1PG2MEA)	70657-70-4		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 monomethyl ether (DPGME)	34590-94-8	01-2119450011-60	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
Dipropylene glycol n-butyl ether (DPGBE)	29911-28-2	01-2119451543-42	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	01-2119453620-46	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 monomethyl ether (TPGME)	25498-49-1	01-2119450087-41	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
Ethylene glycol butyl ether (EGBE)	111-76-2	01-2119475108-36	Acute Tox. 4 (H302, H312, H332); 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
Ethylene glycol butyl ether acetate (EGBEA)	112-07-2	01-2119475112-47	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 (DEGBE)	112-34-5	01-2119475104-44	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
Diethylene glycol butyl ether acetate (DEGBEA)	124-17-4	01-2119475110-51	Not classified	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
Diethylene glycol ethyl ether (DEGEE)	111-90-0	01-2119475105-42	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
Propylene glycol ethyl ether (PGEE)	1569-02-4	01-2119462792-32	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
Propylene glycol ethyl ether acetate (PGEEA)	54839-24-6	01-2119475116-39	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

Dipropylene glycol dibenzoate (DPGDB)	27138-31-4	01-2119529241-49	Not classified	Industry Recommendation	Negligible	342.39	n/a	n/a	8.8	35.08	Hazard unknown but no further hazard information necessary as no exposure expected	Hazard unknown but no further hazard information necessary as no exposure expected
Triethylene glycol bis(2-ethyl hexanoate) (TEGEH)	94-28-0	01-2119475524-34	Not classified	Industry Recommendation	Negligible	402.57	n/a	n/a	27.9	No inhalation hazard identified	167.4	No inhalation hazard identified
2-Propanol, 1-methoxy- (PM) (PGME)	107-98-2	01-2119457435-35	STOT SE 3 (H336)	Harmonised	1.1 (Medium)	90.12	EU: 375	EU: 568	369	553.5	No inhalation hazard identified	553.5
2-Propanol, 1-propoxy- (PnP) (PGnPE)	1569-01-3	01-2119474443-37	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
2-Propanol, 1-methoxy-, 2-acetate (PMA) (PGMEA)	108-65-6	01-2119475791-29	Not classified for human health	Harmonised	0.36 (Low)	132.16	EU: 275	EU: 550	275	No inhalation hazard identified	No inhalation hazard identified	550
2-Propanol, 1-butoxy- (PnB) (PGBE)	5131-66-8	01-2119475527-28	Skin Irrit. 2 (H315); Eye Dam. 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
Phenoxyisopropanol (PPH) (PGPhE)	770-35-4	01-2119486566-23	Eye Irrit. 2 (H319)	Industry Recommendation	0.001 (Low)	152.19	n/a	n/a	25.7	n/a	n/a	n/a
Methoxytetraethylene glycol (TetraEGME)	23783-42-8		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)	-		Eye Irrit. 2 (H319); Skin Irrit. 2 (H315); Skin Corr. 1 (H314)	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
Ethylene Glycol dimethyl ether (EGDME)	110-71-4		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
Bis(2-methoxyethyl) ether (DEGDME)	111-96-6		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		Repr. 1B (H360F)	Harmonised	0.0027 (Low)	178.23	n/a	n/a	80.4	n/a	n/a	n/a
Diethylene glycol diethyl ether (DEGDDE)	112-36-7		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
TEGBE-TetraEGBE (Reaction mass)	-		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
Poly(ethylene glycol) butyl ether (NLPBuH)	9004-77-7		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
Diethylene glycol dibutyl ether (DEGDDBE)	112-73-2		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
<b>SOME NON-OSPA SOLVENTS OF INTEREST</b>												
<b>ALCOHOLS</b>												
methanol	67-56-1	01-2119433307-44	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	01-2119457610-43	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	01-2119444321-51	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	01-2119487967-12	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	01-2119447488-26	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	01-2119491284-34	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	01-2119473975-21	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	01-2119441305-48	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
<b>KETONES</b>												
Isophorone (3,5,5-trimethylcyclohex-2-enone)	78-59-1	01-2119497282-32	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	01-2119472300-51	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	01-2119474441-41	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
<b>ESTERS</b>												
methyl acetate	79-20-9	01-2119459211-47	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	01-2119451093-47	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	01-2119537214-46	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