

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
							OSPA SOLVENTS					
KETONES												
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
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
ALCOHOLS												
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); Skin Irrit. 2 (H315);	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	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
ESTERS												
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
GLYCOL ETHERS/ESTERS												
Dipropylene glycol monomethyl ether (DPGME)	34590-94-8	01-2119450011-60	Not classified	Industry Recommendation	<0.5 (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	<0.5 (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	<0.5 (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	<0.5 (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);	Harmonised	<0.5 (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)	Industry Recommendation (Note 3)	<0.5 (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	<0.5 (Low)	162.23	D-AGS: 67 NL: 50 F/UK: 67.5	D - AGS/NL : 100 F/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	<0.5 (Low)	204.26	D-AGS: 67 (Note 4) F: n/a	D-AGS: 100 (Note 4) F: n/a	85	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	<0.5 (Low)	134.17	D-AGS: 35 (Note 4) F: n/a	D-AGS: 70 (Note 4) F: n/a	61	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)	Industry Recommendation	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: 300 F: n/a UK: n/a	D-AGS: 600 F: n/a UK: n/a	302	608	No inhalation hazard identified	No inhalation hazard identified
SOME NON-OSPA SOLVENTS OF INTEREST												
ALCOHOLS												
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	D-AGS: 210 (Note 4) F: 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-Propanol, 1-butoxy- (PnB)	5131-66-8	01-2119475527-28	Skin Irrit. 2 (H315); Eye Dam. 2 (H319)	Harmonised	± 0.1 (Low)	132.2	n/a	n/a	617	No inhalation hazard identified	No inhalation hazard identified	No inhalation hazard identified
2-Propanol, 1-methoxy- (PM)	107-98-2	01-2119457435-35	STOT SE 3 (H336)	Harmonised	1.1 (Medium)	90.12	EU: 375	EU: 563	369	553,5	No inhalation hazard identified	553,5
2-Propanol, 1-methoxy-, 2-acetate (PMA)	108-65-6	01-2119475791-29	Not classified for human health	Harmonised	<0.5 (Low)	132.16	EU: 275	EU: 550	275	No inhalation hazard identified	No inhalation hazard identified	550
2-Propanol, 1-propoxy- (PnP)	1569-01-3	01-2119474443-37	Eye Irrit. 2 (H319)	Harmonised	± 0.3 (Low)	118.17	n/a	n/a	263	No inhalation hazard identified	No inhalation hazard identified	No inhalation hazard identified
Phenoxyisopropanol (PPh)	770-35-4	01-2119486566-23	Eye Irrit. 2 (H319)	Industry Recommendation	0.001 (Low)	152.19	n/a	n/a	25,7	No inhalation hazard identified	No inhalation hazard identified	No inhalation hazard identified
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
KETONES												
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);	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
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
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
GLYCOL ETHERS/ESTERS												
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
ESTERS												

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

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