SAFETY DATA SHEET

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture KONTAKT LR

Registration number -

UFI:

Austria: TG2X-J8G9-Y00H-RC8T
Belgium: TG2X-J8G9-Y00H-RC8T
Bulgaria: TG2X-J8G9-Y00H-RC8T
Croatia: TG2X-J8G9-Y00H-RC8T
Cyprus: TG2X-J8G9-Y00H-RC8T
Czech Republic: TG2X-J8G9-Y00H-RC8T
Denmark: TG2X-J8G9-Y00H-RC8T
Estonia: TG2X-J8G9-Y00H-RC8T
EU: TG2X-J8G9-Y00H-RC8T
Finland: TG2X-J8G9-Y00H-RC8T
France: TG2X-J8G9-Y00H-RC8T
Germany: TG2X-J8G9-Y00H-RC8T
Great Britain: TG2X-J8G9-Y00H-RC8T
Greece: TG2X-J8G9-Y00H-RC8T
Hungary: TG2X-J8G9-Y00H-RC8T
Iceland: TG2X-J8G9-Y00H-RC8T
Ireland: TG2X-J8G9-Y00H-RC8T
Italy: TG2X-J8G9-Y00H-RC8T
Latvia: TG2X-J8G9-Y00H-RC8T
Lithuania: TG2X-J8G9-Y00H-RC8T
Luxembourg: TG2X-J8G9-Y00H-RC8T
Malta: TG2X-J8G9-Y00H-RC8T
Netherlands: TG2X-J8G9-Y00H-RC8T
Norway: TG2X-J8G9-Y00H-RC8T
Poland: TG2X-J8G9-Y00H-RC8T
Portugal: TG2X-J8G9-Y00H-RC8T
Romania: TG2X-J8G9-Y00H-RC8T
Slovakia: TG2X-J8G9-Y00H-RC8T
Slovenia: TG2X-J8G9-Y00H-RC8T
Spain: TG2X-J8G9-Y00H-RC8T
Sweden: TG2X-J8G9-Y00H-RC8T

Synonyms None.

Product code BDS002424AE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Cleaners - Precision

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name CRC Industries Europe bv

Address Touwslagerstraat 1
9240 Zele
Belgium

Telephone +32(0)52/45.60.11

Fax +32(0)52/45.00.34

E-mail hse@crcind.com

Website www.crcind.com

1.4. Emergency telephone number Tel.: +32(0)52/45.60.11 (office hours: 9-17h CET)

Austria National Poisons Information Centre	+431 406 4343 (Available 24 hours a day.)
Belgium National Poisons Control Center	070 245 245 (Available 24 hours a day.)
Bulgaria National Toxicological Information Centre	+359 2 9154233 (Available 24 hours a day.)
Czech Republic National Poisons Information Centre	+420 224 919 293, or +420 224 915 402 (Hours of operation not provided.)
Denmark National Poisons Control Center	+45 82 12 12 12 (Available 24 hours a day.)
Estonia National Poisons Information Centre	16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays))
Finland National Poison Information Center	(09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day.)
France National Poisons Control Center	ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day.)
Hungary National Emergency Phone Number	36 80 20 11 99 (Available 24 hours a day.)
Lithuania Neatidėliotina informacija apsinuodijus	+370 5 236 20 52 or +37068753378 (Hours of operation not provided.)
Malta Accident and Emergency Department	2545 4030 (Hours of operation not provided.)
Netherlands National Poisons Information Center (NVIC)	030-274 88 88 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Center	22 59 13 00 (Available 24 hours a day.)
Portugal Poison Centre	800 250 250 (Available 24 hours a day.)
Romania Număr de telefon care poate fi apelat în caz de urgență:	021 5992300, int. 291 Spitalul Clinic de Urgență București: spital@urgentafloreasca.ro
Romania	0265 212111, 0265 211292, 0265 217235 Spitalul Clinic Județean de Urgență Târgu Mureș: secretariat@spitjudms.ro
Slovakia National Toxicological Information Centre	+421 2 5477 4166 (Available 24 hours a day.)
Sweden National Poison Information Center	112 - and ask for Poison Information (Available 24 hours a day.)
Switzerland Tox Info Suisse	145 (Available 24 hours a day.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards		
Aerosols	Category 1	H222 - Extremely flammable aerosol. H229 - Pressurized container: May burst if heated.
Health hazards		
Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.

Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether, Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane, Propan-2-ol; Isopropyl alcohol; Isopropanol

Hazard pictograms

Signal word Danger

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing mist/vapours.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response Not assigned.

Storage

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information Regulation (EC) No 648/2004 on detergents: aliphatic hydrocarbons 15-30%

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Propan-2-ol; Isopropyl alcohol; Isopropanol	25 - 50	67-63-0 200-661-7	01-2119457558-25	603-117-00-0	
Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336					
ethanol; ethyl alcohol	10 - 25	64-17-5 200-578-6	01-2119457610-43	603-002-00-5	
Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319					
Specific Concentration Limits: Eye Irrit. 2;H319: C >= 50 %					
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	10 - 25	- 921-024-6	01-2119475514-35	-	
Classification: Flam. Liq. 2;H225, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Chronic 2;H411					

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether	5 - 10	1569-02-4 216-374-5	01-2119462792-32	603-177-00-8	
Classification: Flam. Liq. 3;H226, Eye Irrit. 2;H319, STOT SE 3;H336					
Carbon dioxide	5 - 10	124-38-9 204-696-9	-	-	#
Classification: Press. Gas;H280					
methanol	<1	67-56-1 200-659-6	01-2119433307-44	603-001-00-X	#
Classification: Flam. Liq. 2;H225, Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Acute Tox. 3;H311;(ATE: 300 mg/kg bw), Acute Tox. 3;H331;(ATE: 3 mg/l), STOT SE 1;H370					
Specific Concentration Limits: STOT SE 1;H370: C >= 10 %, STOT SE 2;H371: 3 % <= C < 10 %					

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
ATE: Acute toxicity estimate.
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison centre or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion In the unlikely event of swallowing contact a physician or poison control centre. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Extremely flammable aerosol.

5.1. Extinguishing media

Suitable extinguishing media Alcohol resistant foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire fighting procedures Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.
For emergency responders	Keep unnecessary personnel away. Avoid breathing mist/vapours. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS). Storage class (TRGS 510): 2B (Aerosol dispensers and lighters)
7.3. Specific end use(s)	Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	TWA (MAK)	200 ppm

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	MAK	220 mg/m3
		50 ppm
	STEL	880 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	Ceiling	18000 mg/m3
		10000 ppm
	MAK	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	Ceiling	3800 mg/m3

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value
		2000 ppm
	MAK	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	MAK	260 mg/m3
		200 ppm
	STEL	1040 mg/m3
		800 ppm
Methylal (CAS 109-87-5)	MAK	3100 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	MAK	500 mg/m3
		200 ppm
	STEL	2000 mg/m3
		800 ppm

Belgium. Exposure Limit Values

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54784 mg/m3
		30000 ppm
	TWA	9131 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1907 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	STEL	333 mg/m3
		250 ppm
	TWA	266 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	3155 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1000 mg/m3
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	980 mg/m3

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	MAC	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	MAC	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	MAC	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	MAC	3160 mg/m3
		1000 ppm
	STEL	3950 mg/m3
		1250 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	MAC	999 mg/m3
		400 ppm
	STEL	1250 mg/m3
		500 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	980 mg/m3
		400 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Ceiling	550 mg/m3
	TWA	270 mg/m3
Carbon dioxide (CAS 124-38-9)	Ceiling	45000 mg/m3
	TWA	9000 mg/m3
ethanol; ethyl alcohol (CAS 64-17-5)	Ceiling	3000 mg/m3
	TWA	1000 mg/m3
methanol (CAS 67-56-1)	Ceiling	1000 mg/m3
	TWA	250 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Ceiling	1000 mg/m3
	TWA	500 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TLV	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	TLV	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TLV	3100 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TLV	490 mg/m3
		200 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
methanol (CAS 67-56-1)	STEL	350 mg/m3
		250 ppm
	TWA	250 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	3100 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3
		150 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	2500 mg/m3
		1300 ppm
	TWA	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	STEL	330 mg/m3
		250 ppm
	TWA	270 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	STEL	4100 mg/m3
		1300 ppm
	TWA	3200 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	620 mg/m3
		250 ppm
	TWA	500 mg/m3
		200 ppm

France

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	STEL	1500 mg/m3
	TWA	1000 mg/m3

France. OELs. Indicative Occupational Exposure Limits as Prescribed by Order of 30 June 2004, as amended

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
		9000 mg/m3
		5000 ppm
		5000 ppm

France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended

Components	Type	Value
methanol (CAS 67-56-1)	VME	260 mg/m3
		200 ppm

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
Regulatory status: Regulatory indicative (VRI)		
		5000 ppm
Regulatory status: Regulatory indicative (VRI)		
ethanol; ethyl alcohol (CAS 64-17-5)	VLE	9500 mg/m3
Regulatory status: Indicative limit (VL)		
		5000 ppm
Regulatory status: Indicative limit (VL)		
	VME	1900 mg/m3
Regulatory status: Indicative limit (VL)		
		1000 ppm
Regulatory status: Indicative limit (VL)		
methanol (CAS 67-56-1)	VLE	1300 mg/m3
Regulatory status: Indicative limit (VL)		
		1000 ppm
Regulatory status: Indicative limit (VL)		
	VME	260 mg/m3
Regulatory status: Regulatory binding (VRC)		
		200 ppm
Regulatory status: Regulatory binding (VRC)		
Methylal (CAS 109-87-5)	VME	3100 mg/m3
Regulatory status: Indicative limit (VL)		
		1000 ppm
Regulatory status: Indicative limit (VL)		
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	VLE	980 mg/m3
Regulatory status: Indicative limit (VL)		
		400 ppm
Regulatory status: Indicative limit (VL)		

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	TWA	86 mg/m3
		20 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	380 mg/m3
		200 ppm
methanol (CAS 67-56-1)	TWA	130 mg/m3
		100 ppm
Methylal (CAS 109-87-5)	TWA	1600 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	500 mg/m3
		200 ppm

Germany - TRGS 900

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	TWA	700 mg/m3

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	AGW	86 mg/m3
		20 ppm
Carbon dioxide (CAS 124-38-9)	AGW	9100 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	AGW	380 mg/m3
		200 ppm
methanol (CAS 67-56-1)	AGW	130 mg/m3
		100 ppm
Methylal (CAS 109-87-5)	AGW	1600 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	AGW	500 mg/m3
		200 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
		5000 ppm
	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
		1000 ppm
methanol (CAS 67-56-1)	STEL	325 mg/m3
		250 ppm
	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	STEL	3880 mg/m3
		1250 ppm
	TWA	3100 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	3800 mg/m3
	TWA	1900 mg/m3
methanol (CAS 67-56-1)	TWA	260 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
	TWA	500 mg/m3

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	3100 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	490 mg/m3
		200 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	3100 mg/m3

Ireland. Occupational Exposure Limits

Components	Type	Value
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	STEL	200 ppm
	TWA	50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1000 mg/m3
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	10 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
	TWA	350 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
	TWA	350 mg/m3
		150 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm

Netherlands. OELs (binding)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
	TWA	260 mg/m3
methanol (CAS 67-56-1)	TWA	133 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TLV	950 mg/m3
		500 ppm
methanol (CAS 67-56-1)	TLV	130 mg/m3
		100 ppm
Methylal (CAS 109-87-5)	TLV	1550 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TLV	245 mg/m3
		100 ppm

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	9000 mg/m3
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3
methanol (CAS 67-56-1)	STEL	300 mg/m3
	TWA	100 mg/m3
Methylal (CAS 109-87-5)	STEL	3500 mg/m3
	TWA	1000 mg/m3

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1200 mg/m3
	TWA	900 mg/m3

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1000 ppm
methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
Methylal (CAS 109-87-5)	TWA	1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	9500 mg/m3
		5000 ppm
	TWA	1900 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	STEL	2500 mg/m3
		885 ppm
	TWA	1500 mg/m3
		531 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	500 mg/m3
		203 ppm
	TWA	200 mg/m3
		81 ppm

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1920 mg/m3
		1000 ppm
	TWA	960 mg/m3
		500 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	TWA	220 mg/m3
		50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	960 mg/m3
		500 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	960 mg/m3
		300 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	500 mg/m3
		200 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1910 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	TWA	266 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	TWA	3165 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm

Sweden

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	STEL (STV)	300 ppm
	TWA	200 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	18000 mg/m3
		10000 ppm
	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
methanol (CAS 67-56-1)	STEL	350 mg/m3
		250 ppm
	TWA	250 mg/m3
		200 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3
		150 ppm

Switzerland

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane	TWA	500 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	STEL	440 mg/m3
		100 ppm
	TWA	220 mg/m3
		50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	STEL	1920 mg/m3
		1000 ppm
	TWA	960 mg/m3
		500 ppm
methanol (CAS 67-56-1)	STEL	520 mg/m3
		400 ppm
	TWA	260 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	STEL	6200 mg/m3

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
		2000 ppm
	TWA	3100 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m3
		15000 ppm
	TWA	9150 mg/m3
		5000 ppm
ethanol; ethyl alcohol (CAS 64-17-5)	TWA	1920 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	STEL	333 mg/m3
		250 ppm
	TWA	266 mg/m3
		200 ppm
Methylal (CAS 109-87-5)	STEL	3950 mg/m3
		1250 ppm
	TWA	3160 mg/m3
		1000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1250 mg/m3
		500 ppm
	TWA	999 mg/m3
		400 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

Components	Type	Value
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
methanol (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm

Biological limit values

Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	7 mg/g	Methanol	Creatinine in urine	*
	24,7 mmol/mol	Methanol	Creatinine in urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	50 mg/l	Acetone	Blood	*
	50 mg/l	Acetone	Urine	*
	0,86 umol/l	Acetone	Urine	*

Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)

Components	Value	Determinant	Specimen	Sampling Time
	0,86 umol/l	Acetone	Blood	*

* - For sampling details, please see the source document.

Czech Republic. Limit Values for Indictators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
	0,47 mmol/l	Methanol	Urine	*

* - For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	15 mg/l	Méthanol	Urine	*

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*
	25 mg/l	ACETON	Blood	*

* - For sampling details, please see the source document.

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	940 µmol/l	Methanol	Urine	*
	30 mg/l	Methanol	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	430 µmol/l	Acetone	Urine	*
	25 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	20 mg/g	Methanol	Creatinine in urine	*
	30 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	15 mg/l	Metanol	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	40 mg/l	Acetona	Urine	*

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	30 mg/l	Methanol	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*
	25 mg/l	ACETON	Blood	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General population

Components	Value	Assessment factor	Notes
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)			
Long-term, Systemic, Dermal	44,3 mg/kg bw/day	48	Repeated dose toxicity
Short-term, Systemic, Inhalation	300 mg/m3	5	Repeated dose toxicity
ethanol; ethyl alcohol (CAS 64-17-5)			
Long-term, Systemic, Dermal	206 mg/kg bw/day	40	Repeated dose toxicity
Long-term, Systemic, Oral	87 mg/kg bw/day	20	Repeated dose toxicity
Short-term, Local, Inhalation	950 mg/m3		respiratory tract irritation
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane (CAS -)			
Long-term, Systemic, Dermal	699 mg/kg bw/day		
Long-term, Systemic, Inhalation	608 mg/m3		
Long-term, Systemic, Oral	699 mg/kg bw/day		
methanol (CAS 67-56-1)			
Long-term, Local, Inhalation	50 mg/m3	5	Acute toxicity
Short-term, Local, Inhalation	50 mg/m3	5	Acute toxicity
Short-term, Systemic, Dermal	8 mg/kg bw/day	5	Acute toxicity
Methylal (CAS 109-87-5)			
Long-term, Systemic, Dermal	18,1 mg/kg bw/day	200	Repeated dose toxicity
Long-term, Systemic, Inhalation	31,5 mg/m3	50	Repeated dose toxicity
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Long-term, Systemic, Dermal	319 mg/kg bw/day	2	Repeated dose toxicity
Long-term, Systemic, Inhalation	89 mg/m3	2	Repeated dose toxicity
Long-term, Systemic, Oral	26 mg/kg bw/day	2	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)			
Long-term, Systemic, Dermal	74 mg/kg bw/day	29	Repeated dose toxicity
Short-term, Systemic, Inhalation	500 mg/m3	3	Repeated dose toxicity
ethanol; ethyl alcohol (CAS 64-17-5)			
Long-term, Systemic, Dermal	343 mg/kg bw/day	24	Repeated dose toxicity
Long-term, Systemic, Inhalation	950 mg/m3		
Short-term, Local, Inhalation	1900 mg/m3		respiratory tract irritation
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane (CAS -)			
Long-term, Systemic, Dermal	773 mg/kg bw/day		
Long-term, Systemic, Inhalation	2035 mg/m3		
methanol (CAS 67-56-1)			
Long-term, Local, Inhalation	260 mg/m3		Acute toxicity
Short-term, Local, Inhalation	260 mg/m3		Acute toxicity
Short-term, Systemic, Dermal	40 mg/kg bw/day		Acute toxicity
Methylal (CAS 109-87-5)			
Long-term, Systemic, Dermal	17,9 mg/kg bw/day	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,31 mg/m3	12,5	Repeated dose toxicity
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Long-term, Systemic, Dermal	888 mg/kg bw/day	1	
Long-term, Systemic, Inhalation	500 mg/m3	1	

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)			
Freshwater	10 mg/l	50	
Sediment (freshwater)	37,6 mg/kg		
Soil	1,97 mg/kg		
ethanol; ethyl alcohol (CAS 64-17-5)			
Freshwater	0,96 mg/l	10	
Sediment (marine water)	2,9 mg/kg		
Soil	0,63 mg/kg	1000	
methanol (CAS 67-56-1)			
Freshwater	20,8 mg/l	10	
Sediment (freshwater)	77 mg/kg		
Soil	100 mg/kg	10	

STP	100 mg/l	10	
Methylal (CAS 109-87-5)			
Freshwater	14,577 mg/l	10	
Secondary poisoning	7,3 mg/kg	30	Oral
Sediment (freshwater)	13,135 mg/kg		
Soil	4,654 mg/kg		
STP	10 g/l	1	
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Freshwater	140,9 mg/l	1	
Secondary poisoning	160 mg/kg	30	Oral
Sediment (freshwater)	552 mg/kg		
Soil	28 mg/kg		

Exposure guidelines

Austria MAK: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Belgium OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Bulgaria OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Croatia ELVs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Cyprus OEL: Skin designation

Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Can be absorbed through the skin.

Czech Republic PELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Denmark GV: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Estonia OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

EU Exposure Limit Values: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Finland Exposure Limit Values: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

France INRS: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Germany DFG MAK (advisory): Skin designation

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Can be absorbed through the skin.
methanol (CAS 67-56-1)	Can be absorbed through the skin.

Germany TRGS 900 Limit Values: Skin designation

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Can be absorbed through the skin.
methanol (CAS 67-56-1)	Can be absorbed through the skin.

Greece OEL: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Hungary OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Can be absorbed through the skin.

Iceland OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Can be absorbed through the skin.

Ireland Exposure Limit Values: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Can be absorbed through the skin.

Italy OELs: Skin designation

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Danger of cutaneous absorption
methanol (CAS 67-56-1)	Danger of cutaneous absorption

Latvia OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Lithuania OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Luxembourg OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Malta OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Netherlands OELs (binding): Skin designation

ethanol; ethyl alcohol (CAS 64-17-5)	Can be absorbed through the skin.
methanol (CAS 67-56-1)	Can be absorbed through the skin.

Norway Exposure Limit Values: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Portugal OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Portugal VLEs Norm on Occupatioinal Exposure: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Romania OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Slovakia OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Can be absorbed through the skin.
methanol (CAS 67-56-1)	Can be absorbed through the skin.

Spain OELs: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Sweden Threshold Limit Values: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

Switzerland SUVA Limit Values at the Workplace: Skin designation

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)	Can be absorbed through the skin.
methanol (CAS 67-56-1)	Can be absorbed through the skin.

UK EH40 WEL: Skin designation

methanol (CAS 67-56-1)	Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Wear safety glasses with side shields (or goggles). Use eye protection conforming to EN 166.

Skin protection

- Hand protection

When handling the product wear chemical-resistant gloves (standard EN 374). The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Full contact: Glove material: nitrile. Use gloves with breakthrough time of 480 minutes. Minimum glove thickness 0.38 mm.

- Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge and full facepiece. (Filter type AX)

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls

Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Form	Aerosol.
Colour	Colourless.
Odour	Characteristic odor.
Melting point/freezing point	-114,1 °C (-173,4 °F) estimated
Boiling point or initial boiling point and boiling range	61 °C (141,8 °F) estimated
Flammability	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	1,3 % estimated
Explosive limit – upper (%)	36,5 % estimated
Flash point	-35,0 °C (-31,0 °F) Closed cup
Auto-ignition temperature	> 200 °C (> 392 °F)
Decomposition temperature	Not available.
pH	Not applicable.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Insoluble in water
Partition coefficient (n-octanol/water) (log value)	Not applicable.
Vapour pressure	Not available.
Density and/or relative density	
Relative density	0,77 g/cm3 at 20°C
Vapour density	Not available.
Particle characteristics	Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes	No relevant additional information available.
9.2.2. Other safety characteristics	
Heat of combustion	28,9 kJ/g
VOC	745 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid high temperatures.
10.5. Incompatible materials	Strong oxidising agents. Aluminium. Chlorine. Isocyanates.
10.6. Hazardous decomposition products	Carbon oxides.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met. Classification based on calculation method.

Product	Species	Test Results
KONTAKT LR		
Acute		
Dermal		
ATEmix		37631,6 mg/kg bw
Oral		
ATEmix		12543,9 mg/kg bw

Components	Species	Test Results
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
LC50	Rat	> 10000 mg/l/4h
Oral		
LD50	Rat	> 5000 mg/kg
ethanol; ethyl alcohol (CAS 64-17-5)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg
Inhalation		
LC50	Rat	116,8 - 133,8 mg/l, 4 h
Oral		
LD50	Rat	10470 mg/kg
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane		
Acute		
Dermal		
LD50	Rat	2920 mg/kg bw/day, 24 h
Inhalation		
LC50	Rat	25200 mg/m³, 4 h
Oral		
LD50	Rat	5840 mg/kg bw/day
methanol (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg
Inhalation		
LC50	Rat	87,5 mg/l, 6 Hours
Oral		
LD50	Rat	5628 mg/kg
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		
Acute		
Inhalation		
LC50	Rat	> 25000 mg/m3, 6 h

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitisation Based on available data, the classification criteria are not met.

Skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Not likely, due to the form of the product.

Mixture versus substance information Not available.

11.2. Information on other hazards

Endocrine disrupting properties The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)			
Aquatic			
Acute			
Crustacea	EC10	Crustacea	4600 mg/l, 16 h
	EC50	Daphnia	21100 - 25900 mg/l, 48 h
Fish	LC50	Fish	4600 - 10000 mg/l, 96 h
ethanol; ethyl alcohol (CAS 64-17-5)			
Acute			
	EC50	Selenastrum capricornutum (new name Pseudokirchneriella subcapitata)	> 100 mg/l, 48 hours
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	12340 mg/l, 48 hours
Fish	LC50	Leuciscus idus	> 100 mg/l, 48 hours
		Oncorhynchus mykiss	13000 mg/l, 96 hours
		Oryzias latipes	12000 - 16000 mg/l, 96 hours
		Pimephales promelas	14200 mg/l, 96 hours
Chronic			
Crustacea	NOEC	Daphnia magna	9,6 mg/l, 9 days
Hydrocarbons, C6-C7, n-alkanes,isoalkanes,cyclics,< 5% n-hexane			
Aquatic			
Acute			
Algae	EC50	Algae	> 30 - < 100 mg/l, 72 h
Crustacea	EC50	Daphnia	3 mg/l, 48 h
Fish	LC50	Fish	11,4 mg/l, 96 h
methanol (CAS 67-56-1)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours

Components		Species	Test Results
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Aquatic			
Acute			
Crustacea	LC50	Brine shrimp (Artemia salina)	> 10000 mg/l, 24 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

ethanol; ethyl alcohol	-0,31
methanol	-0,77
Propan-2-ol; Isopropyl alcohol; Isopropanol	0,05

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting properties The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects GWP: 0
The product contains volatile organic compounds which have a photochemical ozone creation potential.

12.8. Additional information

Estonia Dangerous substances in soil Data

ethanol; ethyl alcohol (CAS 64-17-5)	Chemical pesticides (As the total sum of the active substances) 0,5 mg/kg
	Chemical pesticides (As the total sum of the active substances) 20 mg/kg
	Chemical pesticides (As the total sum of the active substances) 5 mg/kg
methanol (CAS 67-56-1)	Chemical pesticides (As the total sum of the active substances) 0,5 mg/kg
	Chemical pesticides (As the total sum of the active substances) 20 mg/kg
	Chemical pesticides (As the total sum of the active substances) 5 mg/kg
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Chemical pesticides (As the total sum of the active substances) 0,5 mg/kg
	Chemical pesticides (As the total sum of the active substances) 20 mg/kg
	Chemical pesticides (As the total sum of the active substances) 5 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1950
14.2. UN proper shipping name	AEROSOLS, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	Not assigned.
Label(s)	2.1
Hazard No. (ADR)	Not assigned.
Tunnel restriction code	D
ADR/RID - Classification code:	5F
14.4. Packing group	Not assigned.
14.5. Environmental hazards	No
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	Not assigned.
14.4. Packing group	Not assigned.
14.5. Environmental hazards	No
ERG Code	10L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

14.1. UN number	UN1950
14.2. UN proper shipping name	Aerosols, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	Not assigned.
14.4. Packing group	Not assigned.
14.5. Environmental hazards	
Marine pollutant	No
EmS	F-D, S-U
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

14.7. Maritime transport in bulk according to IMO instruments Not established.

ADR; IATA; IMDG

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Carbon dioxide (CAS 124-38-9)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

ethanol; ethyl alcohol (CAS 64-17-5)
methanol (CAS 67-56-1)
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

1-ethoxypropan-2-ol; 2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether (CAS 1569-02-4)
ethanol; ethyl alcohol (CAS 64-17-5)
methanol (CAS 67-56-1)
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)

Other regulations	The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
National regulations	Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).
CAS: Chemical Abstract Service.
Ceiling: Short Term Exposure Limit Ceiling value.
CEN: European Committee for Standardization.
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
GWP: Global Warming Potential.
IATA: International Air Transport Association.
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
IMDG: International Maritime Dangerous Goods.
MAC: Maximum Allowed Concentration.
MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).
MARPOL: International Convention for the Prevention of Pollution from Ships.
PBT: Persistent, bioaccumulative and toxic.

	REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals). RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer). RID: Regulations concerning the International Carriage of Dangerous Goods by Rail. STEL: Short term exposure limit. TLV: Threshold Limit Value. TWA: Time Weighted Average. VLE: Exposure Limit Value. VME: Exposure Average Value. VOC: Volatile organic compounds. vPvB: Very persistent and very bioaccumulative. STEL: Short-term Exposure Limit.
References	Not available.
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any statements, which are not written out in full under sections 2 to 15	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H280 Contains gas under pressure; may explode if heated. H301 Toxic if swallowed. H304 May be fatal if swallowed and enters airways. H311 Toxic in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H331 Toxic if inhaled. H336 May cause drowsiness or dizziness. H370 Causes damage to organs. H411 Toxic to aquatic life with long lasting effects.
Revision information	GHS: Classification
Training information	Follow training instructions when handling this material.
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