



SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture KONTAKT WL

Registration number -

Synonyms None.

Product code BDS000542AE

Issue date 19-May-2021

Version number 01

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)

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Austria National Poisons Information Centre +431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Belgium National Poisons Control Center 070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Bulgaria National Toxicological Information Centre +359 2 9154233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Czech Republic National Poisons Information Centre +420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Denmark National Poisons Control Center +45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

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). SDS/Product information may not be available for the Emergency Service.)

Finland National Poison Information Center (09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

France National Poisons Control Center ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Hungary National Emergency Phone Number 36 80 20 11 99 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Lithuania Neatidėliotina informacija apsinuodijus +370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Malta Accident and Emergency Department 2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

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. SDS/Product information may not be available for the Emergency Service.)
Romania Biroul RSI si Informare Toxicologica	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
Slovakia National Toxicological Information Centre	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Sweden National Poison Information Center	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

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.
--	------------	---

Hazard summary

Aerosol CONTENTS UNDER PRESSURE.
Pressurised container may explode when exposed to heat or flame. May cause drowsiness or dizziness. Causes serious eye irritation. Causes skin irritation. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

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

Contains: 1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER, Butan-2-ol, butanone; ethyl methyl ketone, 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.

P271	Use only outdoors or in a well-ventilated area.
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					
Butan-2-ol	10 - 25	78-92-2 201-158-5	01-2119475146-36	603-127-00-5	
Classification: Flam. Liq. 3;H226, Eye Irrit. 2;H319, STOT SE 3;H335;H336					
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	10 - 25	EC921-024-6 -	01-2119475514-35	-	
Classification: Flam. Liq. 2;H225, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Chronic 2;H411					
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER	5 - 10	107-98-2 203-539-1	01-2119457435-35	603-064-00-3	#
Classification: Flam. Liq. 3;H226, STOT SE 3;H336					
butanone; ethyl methyl ketone	1 - 5	78-93-3 201-159-0	01-2119457290-43	606-002-00-3	#
Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336					
Carbon dioxide	1 - 5	124-38-9 204-696-9	Exempt	-	#
Classification: Press. Gas;H280					

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
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 (CO ₂).
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. Use water spray to reduce vapours or divert vapour cloud drift. 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, cyclic
s, < 5% n-hexane

TWA (MAK)

200 ppm

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001**Components****Type****Value**1-METHOXY-2-PROPANOL
; MONOPROPYLENE
GLYCOL METHYL ETHER
(CAS 107-98-2)

Ceiling

187 mg/m3

50 ppm

MAK

187 mg/m3

50 ppm

Butan-2-ol (CAS 78-92-2)

MAK

150 mg/m3

50 ppm

STEL

600 mg/m3

200 ppm

butanone; ethyl methyl
ketone (CAS 78-93-3)

MAK

295 mg/m3

100 ppm

STEL

590 mg/m3

200 ppm

Carbon dioxide (CAS
124-38-9)

Ceiling

18000 mg/m3

10000 ppm

MAK

9000 mg/m3

5000 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**1-METHOXY-2-PROPANOL
; MONOPROPYLENE
GLYCOL METHYL ETHER
(CAS 107-98-2)

STEL

369 mg/m3

100 ppm

TWA

184 mg/m3

50 ppm

Butan-2-ol (CAS 78-92-2)

TWA

307 mg/m3

100 ppm

butanone; ethyl methyl
ketone (CAS 78-93-3)

STEL

900 mg/m3

300 ppm

TWA

600 mg/m3

200 ppm

Carbon dioxide (CAS
124-38-9)

STEL

54784 mg/m3

30000 ppm

TWA

9131 mg/m3

5000 ppm

Belgium. Exposure Limit Values

Components	Type	Value
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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	885 mg/m3
	TWA	590 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	MAC	375 mg/m3
		100 ppm
	STEL	568 mg/m3
		150 ppm
Butan-2-ol (CAS 78-92-2)	MAC	308 mg/m3
		100 ppm
	STEL	462 mg/m3
		150 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	MAC	600 mg/m3
		200 ppm
	STEL	900 mg/m3
		300 ppm
Carbon dioxide (CAS 124-38-9)	MAC	9000 mg/m3
		5000 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-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Ceiling	550 mg/m3
	TWA	270 mg/m3
Butan-2-ol (CAS 78-92-2)	Ceiling	600 mg/m3
	TWA	300 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	Ceiling	900 mg/m3
	TWA	600 mg/m3
Carbon dioxide (CAS 124-38-9)	Ceiling	45000 mg/m3
	TWA	9000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TLV	185 mg/m3
		50 ppm
Butan-2-ol (CAS 78-92-2)	Ceiling	150 mg/m3
		50 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	TLV	145 mg/m3
		50 ppm
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
		375 mg/m3
Butan-2-ol (CAS 78-92-2)	STEL	100 ppm
		250 mg/m3
	TWA	75 ppm
		150 mg/m3
		50 ppm

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

Components	Type	Value
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3 200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	560 mg/m3
		150 ppm
	TWA	370 mg/m3 100 ppm
Butan-2-ol (CAS 78-92-2)	STEL	230 mg/m3
		75 ppm
	TWA	150 mg/m3 50 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	300 mg/m3
		100 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
		5000 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, cyclic s, < 5% n-hexane	STEL	1500 mg/m3
	TWA	1000 mg/m3

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	VLE	375 mg/m3
		100 ppm
Regulatory status: Regulatory binding (VRC)		
Regulatory status: Regulatory binding (VRC)		

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

Components	Type	Value
	VME	188 mg/m3
Regulatory status:	Regulatory binding (VRC)	
		50 ppm
Regulatory status:	Regulatory binding (VRC)	
Butan-2-ol (CAS 78-92-2)	VME	300 mg/m3
Regulatory status:	Indicative limit (VL)	
		100 ppm
Regulatory status:	Indicative limit (VL)	
butanone; ethyl methyl ketone (CAS 78-93-3)	VLE	900 mg/m3
Regulatory status:	Regulatory binding (VRC)	
		300 ppm
Regulatory status:	Regulatory binding (VRC)	
	VME	600 mg/m3
Regulatory status:	Regulatory binding (VRC)	
		200 ppm
Regulatory status:	Regulatory binding (VRC)	
Carbon dioxide (CAS 124-38-9)	VME	9000 mg/m3
Regulatory status:	Regulatory indicative (VRI)	
		5000 ppm
Regulatory status:	Regulatory indicative (VRI)	
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-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TWA	370 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9100 mg/m3
		5000 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, cyclic s, < 5% n-hexane	TWA	700 mg/m3

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	AGW	370 mg/m3

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

Components	Type	Value
butanone; ethyl methyl ketone (CAS 78-93-3)	AGW	100 ppm
		600 mg/m3
Carbon dioxide (CAS 124-38-9)	AGW	200 ppm
		9100 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	AGW	5000 ppm
		500 mg/m3
		200 ppm

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	1080 mg/m3
		300 ppm
	TWA	360 mg/m3
Butan-2-ol (CAS 78-92-2)		100 ppm
	STEL	450 mg/m3
	TWA	150 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)		300 mg/m3
	STEL	100 ppm
	TWA	900 mg/m3
Carbon dioxide (CAS 124-38-9)		300 ppm
	TWA	600 mg/m3
	STEL	200 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		54000 mg/m3
	STEL	5000 ppm
	TWA	9000 mg/m3
		5000 ppm
	STEL	1225 mg/m3
	TWA	500 ppm
		980 mg/m3
		400 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
	TWA	375 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
	TWA	600 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
	STEL	1000 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		
	TWA	500 mg/m3

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	185 mg/m3 50 ppm
Butan-2-ol (CAS 78-92-2)	STEL	150 mg/m3 50 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	145 mg/m3 50 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	490 mg/m3
		200 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3 100 ppm
Butan-2-ol (CAS 78-92-2)	STEL	450 mg/m3 150 ppm
	TWA	300 mg/m3 100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3 200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3 100 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
Butan-2-ol (CAS 78-92-2)	TWA	100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
Butan-2-ol (CAS 78-92-2)	TWA	10 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	200 mg/m3
		67 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	300 mg/m3
		75 ppm
	TWA	190 mg/m3
		50 ppm
Butan-2-ol (CAS 78-92-2)	STEL	250 mg/m3
		75 ppm
	TWA	150 mg/m3
		50 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3

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

Components	Type	Value
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		600 mg/m3
	TWA	250 ppm
		350 mg/m3
		150 ppm

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm
		375 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	100 ppm
		900 mg/m3
	TWA	300 ppm
		600 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	200 ppm
		9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm
		375 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	100 ppm
		900 mg/m3
	TWA	300 ppm
		600 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	200 ppm
		9000 mg/m3
		5000 ppm

Netherlands. OELs (binding)

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	563 mg/m3
	TWA	375 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
	TWA	590 mg/m3
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TLV	180 mg/m3
		50 ppm
Butan-2-ol (CAS 78-92-2)	Ceiling	75 mg/m3
		25 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	TLV	220 mg/m3
		75 ppm
Carbon dioxide (CAS 124-38-9)	TLV	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	360 mg/m3
	TWA	180 mg/m3
Butan-2-ol (CAS 78-92-2)	STEL	450 mg/m3
	TWA	300 mg/m3
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
	TWA	450 mg/m3
Carbon dioxide (CAS 124-38-9)	STEL	27000 mg/m3
	TWA	9000 mg/m3
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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm

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

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	100 ppm
	TWA	50 ppm
Butan-2-ol (CAS 78-92-2)	TWA	100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 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
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
Butan-2-ol (CAS 78-92-2)	TWA	310 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 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
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-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TWA	375 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	500 mg/m3
		200 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
Butan-2-ol (CAS 78-92-2)	TWA	308 mg/m3
		100 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	900 mg/m3
		300 ppm
	TWA	600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9150 mg/m3
		5000 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,cyclic
s,< 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**1-METHOXY-2-PROPANOL
; MONOPROPYLENE
GLYCOL METHYL ETHER
(CAS 107-98-2)

Ceiling

568 mg/m3

STEL

150 ppm

300 mg/m3

75 ppm

TWA

190 mg/m3

50 ppm

Butan-2-ol (CAS 78-92-2)

STEL

250 mg/m3

75 ppm

TWA

150 mg/m3

50 ppm

butanone; ethyl methyl
ketone (CAS 78-93-3)

Ceiling

900 mg/m3

TWA

300 ppm

150 mg/m3

50 ppm

Carbon dioxide (CAS
124-38-9)

STEL

18000 mg/m3

TWA

10000 ppm

9000 mg/m3

5000 ppm

Propan-2-ol; Isopropyl
alcohol; Isopropanol (CAS
67-63-0)

STEL

600 mg/m3

TWA

250 ppm

350 mg/m3

150 ppm

Switzerland**Components****Type****Value**Hydrocarbons, C6-C7,
n-alkanes,isoalkanes,cyclic
s,< 5% n-hexane

TWA

500 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz**Components****Type****Value**1-METHOXY-2-PROPANOL
; MONOPROPYLENE
GLYCOL METHYL ETHER
(CAS 107-98-2)

STEL

720 mg/m3

TWA

200 ppm

360 mg/m3

100 ppm

Butan-2-ol (CAS 78-92-2)

STEL

600 mg/m3

TWA

200 ppm

300 mg/m3

100 ppm

butanone; ethyl methyl
ketone (CAS 78-93-3)

STEL

590 mg/m3

Switzerland. SUVA Grenzwerte am Arbeitsplatz
Components **Type**

Value

	TWA	200 ppm
		590 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	TWA	9000 mg/m3
		5000 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
		500 mg/m3
	TWA	200 ppm

UK. EH40 Workplace Exposure Limits (WELs)
Components **Type**

Value

1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	560 mg/m3
		150 ppm
		375 mg/m3
Butan-2-ol (CAS 78-92-2)	TWA	100 ppm
		462 mg/m3
		150 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	308 mg/m3
		100 ppm
		899 mg/m3
	TWA	300 ppm
		600 mg/m3
		200 ppm
Carbon dioxide (CAS 124-38-9)	STEL	27400 mg/m3
		15000 ppm
		9150 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	5000 ppm
		1250 mg/m3
		300 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**

1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
		375 mg/m3
	TWA	100 ppm
		900 mg/m3
		300 ppm
butanone; ethyl methyl ketone (CAS 78-93-3)	STEL	600 mg/m3
		300 ppm
	TWA	600 mg/m3

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

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

Components	Value	Determinant	Specimen	Sampling Time
butanone; ethyl methyl ketone (CAS 78-93-3)	2,6 mg/g	methyl ethyl ketone	Creatinine in urine	*
	4,08 mmol/mol	methyl ethyl ketone	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	*
	0,86 umol/l	Acetone	Blood	*

* - 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
butanone; ethyl methyl ketone (CAS 78-93-3)	2 mg/l	Méthyléthylcéto ne	Urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	15 mg/l	1-Methoxyprop an-2-ol	Urine	*
butanone; ethyl methyl ketone (CAS 78-93-3)	2 mg/l	2-Butanon	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
butanone; ethyl methyl ketone (CAS 78-93-3)	2 µg/l	MEK	Urine	*
	28 µmol/l	MEK	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	25 µg/l	Acetone	Urine	*
	430 µmol/l	Acetone	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
butanone; ethyl methyl ketone (CAS 78-93-3)	2 mg/l	Metiletilcetona	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
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	20 mg/l	1-METHOXYPROPANOL-2	Urine	*
butanone; ethyl methyl ketone (CAS 78-93-3)	2 mg/l	2-Butanon (MEK)	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.

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling Time
butanone; ethyl methyl ketone (CAS 78-93-3)	70 umol/l	Butan-2-one	Urine	*

* - 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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)			
Long-term, Systemic, Dermal	78 mg/kg bw/day	16,8	Repeated dose toxicity
Long-term, Systemic, Inhalation	43,9 mg/m3		Repeated dose toxicity
Long-term, Systemic, Oral	33 mg/kg bw/day	28	Repeated dose toxicity
Butan-2-ol (CAS 78-92-2)			
Long-term, Systemic, Dermal	203 mg/kg bw/day	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	213 mg/m3		Repeated dose toxicity
butanone; ethyl methyl ketone (CAS 78-93-3)			
Long-term, Systemic, Dermal	412 mg/kg bw/day	2	Repeated dose toxicity
Long-term, Systemic, Inhalation	106 mg/m3	2	Repeated dose toxicity
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS EC921-024-6)			
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		
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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)			
Long-term, Systemic, Dermal	183 mg/kg bw/day	10,08	Repeated dose toxicity
Long-term, Systemic, Inhalation	369 mg/m3		Repeated dose toxicity
Short-term, Local, Inhalation	553,5 mg/m3		Neurotoxicity
Short-term, Systemic, Inhalation	553,5 mg/m3		Neurotoxicity
Butan-2-ol (CAS 78-92-2)			
Long-term, Systemic, Dermal	405 mg/kg bw/day	50	Repeated dose toxicity
Long-term, Systemic, Inhalation	600 mg/m3		Repeated dose toxicity
butanone; ethyl methyl ketone (CAS 78-93-3)			
Long-term, Systemic, Dermal	1161 mg/kg bw/day	1	Repeated dose toxicity
Long-term, Systemic, Inhalation	600 mg/m3	1	Repeated dose toxicity
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS EC921-024-6)			
Long-term, Systemic, Dermal	773 mg/kg bw/day		
Long-term, Systemic, Inhalation	2035 mg/m3		
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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)			
Freshwater	10 mg/l	100	
Sediment (freshwater)	52,3 mg/kg		
Soil	4,59 mg/kg		
STP	100 mg/l	10	
Butan-2-ol (CAS 78-92-2)			
Freshwater	47,1 mg/l	1	
Sediment (freshwater)	196,19 mg/kg		
Soil	11,58 mg/kg	1	
STP	761 mg/l	1	
butanone; ethyl methyl ketone (CAS 78-93-3)			
Freshwater	55,8 mg/l	1	
Secondary poisoning	1000 mg/kg	30	Oral
Sediment (freshwater)	284,74 mg/kg		
Soil	22,5 mg/kg	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

EU Exposure Limit Values: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2) 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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2) Can be absorbed through the skin.

butanone; ethyl methyl ketone (CAS 78-93-3) 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. Suitable gloves can be recommended by the glove supplier.

- 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	Solvent.
Melting point/freezing point	-114 °C (-173,2 °F) estimated
Boiling point or initial boiling point and boiling range	60 - 120 °C (140 - 248 °F)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1,7 % estimated
Flammability limit - upper (%)	12 % estimated
Flash point	-20,0 °C (-4,0 °F) Closed cup
Auto-ignition temperature	> 200 °C (> 392 °F)
Decomposition temperature	Not available.
pH	Not applicable.
Solubility(ies)	
Solubility (water)	Insoluble in water
Vapour pressure	4131,1 hPa estimated
Vapour density	Not available.
Relative density	0,77 g/cm ³
Relative density temperature	20 °C (68 °F)
Particle characteristics	Not available.

9.2 Other safety characteristics

Chemical family	Cleaner
Evaporation rate	9 (Ether=1)
Explosive properties	Not explosive.
Heat of combustion (NFPA 30B)	19,73 kJ/g estimated
Oxidising properties	Not oxidising.
VOC	740 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 acids. Strong oxidising agents. 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 Classification based on calculation method. Based on available data, the classification criteria are not met.

Product	Species	Test Results
KONTAKT WL		
Acute		
Dermal		
LD50	Rabbit	3995 mg/kg
Inhalation		
LC50	Rat	54790 mg/m ³ , 4 h
Oral		
LD50	Rat	5555 mg/kg
Components	Species	Test Results
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)		
Acute		
Dermal		
LD50	Rabbit	13 g/kg
Inhalation		
LC50	Rat	54,6 mg/l, 4 Hours
Oral		
LD50	Rat	5,71 g/kg
Butan-2-ol (CAS 78-92-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	6,48 g/kg
butanone; ethyl methyl ketone (CAS 78-93-3)		
Acute		
Dermal		
LD50	Rabbit	> 8000 mg/kg
Oral		
LD50	Rat	2300 - 3500 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/m ³ , 4 h
Oral		
LD50	Rat	5840 mg/kg bw/day
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	12800 mg/kg
Inhalation		
LC50	Rat	> 25000 mg/m ³ , 6 h
Oral		
LD50	Rat	4,7 g/kg
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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)			
Aquatic			
Acute			
Algae	EC50	Algae	> 1000 mg/l, 72 h
Crustacea	EC50	Daphnia	> 1000 mg/l, 48 h
Fish	LC50	Oncorhynchus mykiss	> 1000 mg/l, 96 h
Butan-2-ol (CAS 78-92-2)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1859 - 7143 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	3380 - 3990 mg/l, 96 hours
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
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)

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER	-0,49
Butan-2-ol	0,61
butanone; ethyl methyl ketone	0,29
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	None known
12.7. Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.
12.8. Additional information	
Estonia Dangerous substances in soil Data	
Butan-2-ol (CAS 78-92-2)	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
butanone; ethyl methyl ketone (CAS 78-93-3)	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
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Hazard No. (ADR)	Not available.
Tunnel restriction code	(D)
ADR/RID - Classification code:	5F
14.4. Packing group	Not applicable
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
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
14.4. Packing group	Not applicable
14.5. Environmental hazards	No

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

14.1. UN number UN1950

14.2. UN proper shipping name AEROSOLS

14.3. Transport hazard class(es)

Class 2.1

Subsidiary risk -

14.4. Packing group Not applicable

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

butanone; ethyl methyl ketone (CAS 78-93-3)

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-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)

Butan-2-ol (CAS 78-92-2)
butanone; ethyl methyl ketone (CAS 78-93-3)
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 H-statements 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. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Revision information	None.
Training information	Follow training instructions when handling this material.

Disclaimer

CRC Industries Europe bvba cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.