



# SAFETY DATA SHEET

Version #:  
01

Issue date:  
04-March-2022

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

### 1.1. Product identifier

Trade name or designation of the mixture ZINC PRIMER

Registration number -

Synonyms None.

Product code BDS002667AE

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

Identified uses Paints

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)

**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)

<b>Norway Norwegian Poison Information Center</b>	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Portugal Poison Centre</b>	800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Romania Număr de telefon care poate fi apelat în caz de urgență:</b>	021 5992300, int. 291 Spitalul Clinic de Urgență București: spital@urgentafloreasca.ro
<b>Romania</b>	0265 212111, 0265 211292, 0265 217235 Spitalul Clinic Județean de Urgență Târgu Mureș: secretariat@spitjudms.ro
<b>Slovakia National Toxicological Information Centre</b>	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Sweden National Poison Information Center</b>	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Switzerland Tox Info Suisse</b>	145 (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.
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##### Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.

##### Environmental hazards

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

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

##### 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.
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.
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.
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###### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Supplemental label information** EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

VOC content declaration according to directive 2004/42/EC:  
Subcategory: Special Finishes, Coating: All types. Max. allowed content g/l = 840.

### 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
Dimethyl ether	50 - 75	115-10-6 204-065-8	01-2119472128-37	603-019-00-8	#
<b>Classification:</b> Flam. Gas 1A;H220, Press. Gas;H280					
Xylene	10 - 25	1330-20-7 215-535-7	01-2119488216-32	601-022-00-9	#
<b>Classification:</b> Flam. Liq. 3;H226, Acute Tox. 4;H312;(ATE: 1100 mg/kg), Acute Tox. 4;H332;(ATE: 11 mg/l), Skin Irrit. 2;H315					
4-methylpentan-2-one; isobutyl methyl ketone	5 - 10	108-10-1 203-550-1	01-2119473980-30	606-004-00-4	#
<b>Classification:</b> Flam. Liq. 2;H225, Acute Tox. 4;H332;(ATE: 11 mg/l), Eye Irrit. 2;H319, STOT SE 3;H335					
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	<10	13463-67-7 236-675-5	01-2119489379-17	022-006-002	10
<b>Classification:</b> Carc. 2;H351					
2-Methoxy-1-methylethyl acetate	1 - 5	108-65-6 203-603-9	01-2119475791-29	607-195-00-7	#
<b>Classification:</b> Flam. Liq. 3;H226, STOT SE 3;H336					
Ethylbenzene	1 - 5	100-41-4 202-849-4	01-2119489370-35	601-023-00-4	#
<b>Classification:</b> Flam. Liq. 2;H225, Acute Tox. 4;H332;(ATE: 11 mg/l), STOT RE 2;H373, Asp. Tox. 1;H304, Aquatic Chronic 3;H412					
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER	<2,5	107-98-2 203-539-1	01-2119457435-35	603-064-00-3	#
<b>Classification:</b> Flam. Liq. 3;H226, STOT SE 3;H336					
Fatty acids, C6-19-branched, zinc salts	<2,5	68551-44-0 271-378-4	01-2119980048-32	-	
<b>Classification:</b> Aquatic Chronic 2;H411					
trizinc bis(orthophosphate)	<2,5	7779-90-0 231-944-3	01-2119485044-40	030-011-00-6	
<b>Classification:</b> Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
Zinc oxide	<2,5	1314-13-2 215-222-5	01-2119463881-32	030-013-00-7	
<b>Classification:</b> Aquatic Acute 1;H400, Aquatic Chronic 1;H410					

#### List of abbreviations and symbols that may be used above

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.

#: This substance has been assigned Union workplace exposure limit(s).

Note 10 - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

#### 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** Move to fresh air. Call a physician if symptoms develop or persist.

**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** 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** Dry powder. Carbon dioxide (CO<sub>2</sub>).

**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. 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. 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 sediment in water systems. 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 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. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Ceiling	187 mg/m <sup>3</sup>	
		50 ppm	
	MAK	187 mg/m <sup>3</sup>	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Ceiling	50 ppm	
		187 mg/m <sup>3</sup>	
	MAK	50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Ceiling	550 mg/m <sup>3</sup>	
		100 ppm	
	MAK	275 mg/m <sup>3</sup>	
Dimethyl ether (CAS 115-10-6)	MAK	50 ppm	
		83 mg/m <sup>3</sup>	
	STEL	20 ppm	
Ethylbenzene (CAS 100-41-4)	Ceiling	208 mg/m <sup>3</sup>	
		50 ppm	
	MAK	3820 mg/m <sup>3</sup>	
Talc (CAS 14807-96-6)	MAK	2000 ppm	Respirable fraction.
	STEL	1910 mg/m <sup>3</sup>	Inhalable fraction.
		1000 ppm	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	MAK	880 mg/m <sup>3</sup>	Respirable dust.
	STEL	200 ppm	
		440 mg/m <sup>3</sup>	
Xylene (CAS 1330-20-7)	MAK	100 ppm	
		2 mg/m <sup>3</sup>	Respirable dust.

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

Components	Type	Value	Form
		50 ppm	
	STEL	442 mg/m <sup>3</sup>	
		100 ppm	
Zinc oxide (CAS 1314-13-2)	MAK	5 mg/m <sup>3</sup>	Fume and respirable dust.
	STEL	20 mg/m <sup>3</sup>	Inhalable fraction.
		10 mg/m <sup>3</sup>	Respirable fraction.

**Belgium. Exposure Limit Values**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	369 mg/m <sup>3</sup>	
		100 ppm	
	TWA	184 mg/m <sup>3</sup>	
		50 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m <sup>3</sup>	
		100 ppm	
	TWA	275 mg/m <sup>3</sup>	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m <sup>3</sup>	
		50 ppm	
	TWA	83 mg/m <sup>3</sup>	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m <sup>3</sup>	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	551 mg/m <sup>3</sup>	
		125 ppm	
	TWA	87 mg/m <sup>3</sup>	
		20 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m <sup>3</sup>	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m <sup>3</sup>	
Xylene (CAS 1330-20-7)	STEL	442 mg/m <sup>3</sup>	
		100 ppm	
	TWA	221 mg/m <sup>3</sup>	
		50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Respirable fraction.
	TWA	2 mg/m <sup>3</sup>	Respirable fraction.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m <sup>3</sup>	
		150 ppm	

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

Components	Type	Value	Form
	TWA	375 mg/m3	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	200 mg/m3	
	TWA	50 mg/m3	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3	
	TWA	435 mg/m3	
Talc (CAS 14807-96-6)	TWA	1 fibers/cm3	Respirable fraction.
		6 mg/m3	Inhalable fraction.
		3 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	MAC	375 mg/m3	
		100 ppm	
	STEL	568 mg/m3	
		150 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	MAC	275 mg/m3	
		50 ppm	
	STEL	550 mg/m3	
		100 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	MAC	83 mg/m3	
		20 ppm	
	STEL	208 mg/m3	
		50 ppm	
Dimethyl ether (CAS 115-10-6)	MAC	1920 mg/m3	
		1000 ppm	

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

Components	Type	Value	Form
Ethylbenzene (CAS 100-41-4)	MAC	442 mg/m3	
		100 ppm	
	STEL	884 mg/m3 200 ppm	
Talc (CAS 14807-96-6)	MAC	1 mg/m3	Respirable dust.
	MAC	4 mg/m3	Respirable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)		10 mg/m3	Total dust.
Xylene (CAS 1330-20-7)	MAC	221 mg/m3	
		50 ppm	
	STEL	442 mg/m3 100 ppm	
Zinc oxide (CAS 1314-13-2)	MAC	2 mg/m3	Respirable dust.
	STEL	10 mg/m3	Respirable dust.

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

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	706 part/cm3	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	
Zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	Fume.

**Czech Republic. OELs. Government Decree 361**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Ceiling	550 mg/m3	
	TWA	270 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Ceiling	550 mg/m3	
	TWA	270 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Ceiling	200 mg/m3	
	TWA	80 mg/m3	
Dimethyl ether (CAS 115-10-6)	Ceiling	2000 mg/m3	
	TWA	1000 mg/m3	
Ethylbenzene (CAS 100-41-4)	Ceiling	500 mg/m3	
	TWA	200 mg/m3	
Talc (CAS 14807-96-6)	TWA	10 mg/m3	Total dust.
		10 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	Ceiling	400 mg/m3	
	TWA	200 mg/m3	
Zinc oxide (CAS 1314-13-2)	Ceiling	5 mg/m3	
	TWA	2 mg/m3	

**Denmark. Exposure Limit Values**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TLV	185 mg/m <sup>3</sup>	
		50 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TLV	275 mg/m <sup>3</sup>	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	TLV	83 mg/m <sup>3</sup>	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TLV	1920 mg/m <sup>3</sup>	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	TLV	217 mg/m <sup>3</sup>	
		50 ppm	
Talc (CAS 14807-96-6)	TLV	0,3 fibers/cm <sup>3</sup>	Fiber.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TLV	6 mg/m <sup>3</sup>	
Xylene (CAS 1330-20-7)	TLV	109 mg/m <sup>3</sup>	
		25 ppm	
Zinc oxide (CAS 1314-13-2)	TLV	4 mg/m <sup>3</sup>	

**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/m <sup>3</sup>
		150 ppm
	TWA	375 mg/m <sup>3</sup>
		100 ppm
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m <sup>3</sup>
		100 ppm
	TWA	275 mg/m <sup>3</sup>
		50 ppm
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m <sup>3</sup>
		50 ppm
	TWA	83 mg/m <sup>3</sup>
		20 ppm
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m <sup>3</sup>
		1000 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m <sup>3</sup>
		200 ppm
	TWA	442 mg/m <sup>3</sup>
		100 ppm

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

Components	Type	Value
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m3
Xylene (CAS 1330-20-7)	STEL	450 mg/m3 100 ppm
	TWA	200 mg/m3 50 ppm
Zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3

**Finland. Workplace Exposure Limits**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	560 mg/m3	
	TWA	150 ppm 370 mg/m3 100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
	TWA	100 ppm 270 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	210 mg/m3	
	TWA	50 ppm 80 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	2000 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	880 mg/m3	
	TWA	200 ppm 220 mg/m3 50 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3 1 mg/m3	Inhalable dust. Respirable.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	Dust.
Xylene (CAS 1330-20-7)	STEL	440 mg/m3 100 ppm	
	TWA	220 mg/m3 50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	VLE	375 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		100 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
	VME	188 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		50 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	VLE	550 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		100 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
	VME	275 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		50 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	VLE	208 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		50 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
	VME	83 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		20 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
Dimethyl ether (CAS 115-10-6)	VME	1920 mg/m3	
<b>Regulatory status:</b>	Regulatory indicative (VRI)		
		1000 ppm	
<b>Regulatory status:</b>	Regulatory indicative (VRI)		
Ethylbenzene (CAS 100-41-4)	VLE	442 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		100 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
	VME	88,4 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		20 ppm	
<b>Regulatory status:</b>	Regulatory binding (VRC)		
Talc (CAS 14807-96-6)	VME	5 mg/m3	Respirable fraction.
<b>Regulatory status:</b>	Regulatory binding (VRC)		
		10 mg/m3	Inhalable fraction.
<b>Regulatory status:</b>	Regulatory binding (VRC)		
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	VME	10 mg/m3	
<b>Regulatory status:</b>	Indicative limit (VL)		
Xylene (CAS 1330-20-7)	VLE	442 mg/m3	
<b>Regulatory status:</b>	Regulatory binding (VRC)		

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

Components	Type	Value	Form
		100 ppm	
<b>Regulatory status:</b> Regulatory binding (VRC)			
	VME	221 mg/m3	
<b>Regulatory status:</b> Regulatory binding (VRC)			
		50 ppm	
<b>Regulatory status:</b> Regulatory binding (VRC)			
Zinc oxide (CAS 1314-13-2)	VME	5 mg/m3	Fume.
<b>Regulatory status:</b> Indicative limit (VL)			
		10 mg/m3	Dust.
<b>Regulatory status:</b> 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	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TWA	370 mg/m3	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TWA	270 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	TWA	83 mg/m3	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1900 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	88 mg/m3	
		20 ppm	
Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.
Talc (CAS 14807-96-6)	TWA	4 mg/m3	Inhalable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	0,3 mg/m3	Respirable fraction.
trizinc bis(orthophosphate) (CAS 7779-90-0)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.
Xylene (CAS 1330-20-7)	TWA	220 mg/m3	
		50 ppm	
Zinc oxide (CAS 1314-13-2)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	AGW	370 mg/m3	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	AGW	270 mg/m3	

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	AGW	50 ppm	
		83 mg/m3	
Dimethyl ether (CAS 115-10-6)	AGW	20 ppm	
		1900 mg/m3	
Ethylbenzene (CAS 100-41-4)	AGW	1000 ppm	
		88 mg/m3	
Talc (CAS 14807-96-6)	AGW	20 ppm	
		10 mg/m3	Inhalable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	AGW	1,25 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Xylene (CAS 1330-20-7)	AGW	1,25 mg/m3	Respirable fraction.
		220 mg/m3	
Zinc oxide (CAS 1314-13-2)	AGW	50 ppm	
		10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	1080 mg/m3	
	TWA	300 ppm 360 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	100 ppm 550 mg/m3	
	TWA	100 ppm 275 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	50 ppm 410 mg/m3	
	TWA	100 ppm 410 mg/m3	
Dimethyl ether (CAS 115-10-6)	TWA	100 ppm 1920 mg/m3	
	STEL	1000 ppm 545 mg/m3	
Ethylbenzene (CAS 100-41-4)	TWA	125 ppm 435 mg/m3	
	TWA	100 ppm 2 mg/m3	Respirable.
Talc (CAS 14807-96-6)	TWA	10 mg/m3	Inhalable

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

Components	Type	Value	Form
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Inhalable
Xylene (CAS 1330-20-7)	STEL	650 mg/m3	
	TWA	150 ppm 435 mg/m3	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Fume.
	TWA	5 mg/m3	Fume.

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
	TWA	375 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
	TWA	275 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
	TWA	83 mg/m3	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
	TWA	442 mg/m3	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
	TWA	221 mg/m3	
Zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	Fume.
		5 mg/m3	Dust.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
		150 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TWA	185 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3	
		50 ppm	
	STEL	208 mg/m3	
		50 ppm	
	TWA	83 mg/m3	

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Dimethyl ether (CAS 115-10-6)	TWA	20 ppm	
		1885 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	1000 ppm	
		884 mg/m3	
	TWA	200 ppm	
		200 mg/m3	
Talc (CAS 14807-96-6)	TWA	50 ppm	
		0,3 fibers/cm3	Fiber.
		5 mg/m3	Respirable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	Total dust.
		6 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	109 mg/m3	
		25 ppm	
Zinc oxide (CAS 1314-13-2)	TWA	4 mg/m3	Fume.

**Ireland. Occupational Exposure Limits**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
	TWA	150 ppm	
		375 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	100 ppm	
		550 mg/m3	
	TWA	100 ppm	
		275 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	50 ppm	
		208 mg/m3	
	TWA	83 mg/m3	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	1000 ppm	
		884 mg/m3	
	TWA	200 ppm	
		442 mg/m3	
Talc (CAS 14807-96-6)	TWA	100 ppm	
		10 mg/m3	Total inhalable dust.
		0,8 mg/m3	Respirable dust.

**Ireland. Occupational Exposure Limits**

Components	Type	Value	Form
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
	TWA	100 ppm 221 mg/m3	
Zinc oxide (CAS 1314-13-2)	STEL	50 ppm 10 mg/m3	Respirable fraction and fume.
	TWA	2 mg/m3	Respirable fraction and fume.

**Italy. Occupational Exposure Limits**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
	TWA	150 ppm 375 mg/m3 100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
	TWA	100 ppm 275 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
	TWA	50 ppm 83 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	1000 ppm 884 mg/m3	
	TWA	200 ppm 442 mg/m3 100 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
	TWA	100 ppm 221 mg/m3 50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3
	TWA	100 ppm 275 mg/m3 50 ppm
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3
	TWA	50 ppm 83 mg/m3 20 ppm
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3 1000 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
	TWA	200 ppm 442 mg/m3 100 ppm
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
	TWA	100 ppm 221 mg/m3 50 ppm
Zinc oxide (CAS 1314-13-2)	TWA	0,5 mg/m3

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	300 mg/m3	
	TWA	75 ppm 190 mg/m3 50 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	400 mg/m3	
	TWA	75 ppm 250 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
	TWA	50 ppm 83 mg/m3 20 ppm	

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

Components	Type	Value	Form
Dimethyl ether (CAS 115-10-6)	STEL	2280 mg/m <sup>3</sup>	
		1500 ppm	
	TWA	1920 mg/m <sup>3</sup> 1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m <sup>3</sup>	
		200 ppm	
	TWA	442 mg/m <sup>3</sup> 100 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m <sup>3</sup> 1 mg/m <sup>3</sup>	Inhalable fraction. Respirable fraction.
		5 mg/m <sup>3</sup>	
	TWA		
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m <sup>3</sup>	
Xylene (CAS 1330-20-7)	STEL	442 mg/m <sup>3</sup> 100 ppm	
		221 mg/m <sup>3</sup> 50 ppm	
	TWA	5 mg/m <sup>3</sup>	
Zinc oxide (CAS 1314-13-2)	TWA	5 mg/m <sup>3</sup>	

**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/m <sup>3</sup>
		150 ppm
	STEL	550 mg/m <sup>3</sup>
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)		100 ppm
	STEL	208 mg/m <sup>3</sup>
		50 ppm
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	884 mg/m <sup>3</sup>
		200 ppm
	STEL	442 mg/m <sup>3</sup> 100 ppm
Ethylbenzene (CAS 100-41-4)		200 ppm
	STEL	884 mg/m <sup>3</sup>
		200 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m <sup>3</sup> 100 ppm
		100 ppm
	STEL	442 mg/m <sup>3</sup> 100 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/m <sup>3</sup>
		150 ppm
	TWA	375 mg/m <sup>3</sup> 100 ppm
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m <sup>3</sup>
		100 ppm
	TWA	275 mg/m <sup>3</sup>

**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
		50 ppm
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3
	TWA	50 ppm 83 mg/m3
Dimethyl ether (CAS 115-10-6)	TWA	20 ppm 1920 mg/m3
Ethylbenzene (CAS 100-41-4)	STEL	1000 ppm 884 mg/m3
	TWA	200 ppm 442 mg/m3
Xylene (CAS 1330-20-7)	STEL	100 ppm 442 mg/m3
	TWA	100 ppm 221 mg/m3 50 ppm

**Netherlands. OELs (binding)**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	563 mg/m3	
	TWA	375 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TWA	550 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
	TWA	104 mg/m3	
Dimethyl ether (CAS 115-10-6)	STEL	1500 mg/m3	
	TWA	950 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	430 mg/m3	
	TWA	215 mg/m3	
Talc (CAS 14807-96-6)	TWA	0,25 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
	TWA	210 mg/m3	

**Norway. Administrative Norms for Contaminants in the Workplace**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TLV	180 mg/m3	
		50 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TLV	270 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
		50 ppm	

**Norway. Administrative Norms for Contaminants in the Workplace**

Components	Type	Value	Form
	TLV	83 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	TLV	384 mg/m3 200 ppm	
Ethylbenzene (CAS 100-41-4)	TLV	20 mg/m3 5 ppm	
Talc (CAS 14807-96-6)	TLV	6 mg/m3 2 mg/m3	Total dust. Respirable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TLV	5 mg/m3	
Xylene (CAS 1330-20-7)	TLV	108 mg/m3 25 ppm	
Zinc oxide (CAS 1314-13-2)	TLV	5 mg/m3 5 mg/m3 10 mg/m3	Respirable dust. Dust. Total dust.

**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	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	360 mg/m3	
	TWA	0 ppm 180 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	0 ppm 520 mg/m3	
	TWA	260 mg/m3 0 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	200 mg/m3	
	TWA	0 ppm 83 mg/m3	
Dimethyl ether (CAS 115-10-6)	TWA	0 ppm 1000 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	400 mg/m3	
	TWA	0 ppm 200 mg/m3	
Talc (CAS 14807-96-6)	TWA	0 ppm 4 mg/m3 1 mg/m3 0 ppm 0 ppm	Inhalable fraction. Respirable fraction. Respirable fraction. Inhalable fraction.

**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	Form
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	STEL	30 mg/m3	
	TWA	0 ppm 10 mg/m3	Inhalable fraction.
Xylene (CAS 1330-20-7)	STEL	0 ppm 200 mg/m3	Inhalable fraction.
	TWA	0 ppm 100 mg/m3	
Zinc oxide (CAS 1314-13-2)	STEL	0 ppm 10 mg/m3	Inhalable fraction.
	TWA	0 ppm 5 mg/m3	Inhalable fraction.
		0 ppm	Inhalable fraction.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
	TWA	150 ppm 375 mg/m3	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	100 ppm 550 mg/m3	
	TWA	100 ppm 275 mg/m3	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	50 ppm 208 mg/m3	
	TWA	83 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3 1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
	TWA	200 ppm 442 mg/m3	
Xylene (CAS 1330-20-7)	STEL	100 ppm 442 mg/m3	
	TWA	100 ppm 221 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	100 ppm	

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

Components	Type	Value	Form
	TWA	50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	75 ppm	
	TWA	20 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
		150 ppm	
	TWA	375 mg/m3	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
		50 ppm	
	TWA	83 mg/m3	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	442 mg/m3	
		100 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	STEL	15 mg/m3	
	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Fume.
	TWA	5 mg/m3	Fume.
<b>Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents</b>			
Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m3	
		150 ppm	
	TWA	375 mg/m3 100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	166 mg/m3	
		40 ppm	
	TWA	83 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	442 mg/m3 100 ppm	
Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
		2 mg/m3	Respirable fraction.
		10 mg/m3	Total
		5 mg/m3	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m3	
trizinc bis(orthophosphate) (CAS 7779-90-0)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3 50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	1 mg/m3	Respirable fume.
	TWA	1 mg/m3	Respirable fume.

**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	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	TWA	375 mg/m <sup>3</sup>	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	TWA	275 mg/m <sup>3</sup>	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	TWA	83 mg/m <sup>3</sup>	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m <sup>3</sup>	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	442 mg/m <sup>3</sup>	
		100 ppm	
Talc (CAS 14807-96-6)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.
Xylene (CAS 1330-20-7)	TWA	221 mg/m <sup>3</sup>	
		50 ppm	
Zinc oxide (CAS 1314-13-2)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.

**Spain. Occupational Exposure Limits**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	568 mg/m <sup>3</sup>	
		150 ppm	
	TWA	375 mg/m <sup>3</sup>	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m <sup>3</sup>	
		100 ppm	
	TWA	275 mg/m <sup>3</sup>	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m <sup>3</sup>	
		50 ppm	
	TWA	83 mg/m <sup>3</sup>	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m <sup>3</sup>	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m <sup>3</sup>	
		200 ppm	

**Spain. Occupational Exposure Limits**

Components	Type	Value	Form
	TWA	441 mg/m3 100 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm	
	TWA	221 mg/m3 50 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Ceiling	568 mg/m3	
		150 ppm	
	STEL	300 mg/m3 75 ppm	
	TWA	190 mg/m3 50 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Ceiling	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Ceiling	200 mg/m3	
		50 ppm	
	TWA	83 mg/m3 20 ppm	
Dimethyl ether (CAS 115-10-6)	STEL	1500 mg/m3	
		800 ppm	
	TWA	950 mg/m3 500 ppm	
Ethylbenzene (CAS 100-41-4)	Ceiling	884 mg/m3	
		200 ppm	
	TWA	220 mg/m3 50 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Total dust.
		1 mg/m3	Respirable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m3	Total dust.
Xylene (CAS 1330-20-7)	Ceiling	442 mg/m3 100 ppm	

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

Components	Type	Value	Form
	TWA	221 mg/m3 50 ppm	
Zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	Total dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	720 mg/m3	
	TWA	200 ppm 360 mg/m3 100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	275 mg/m3	
	TWA	50 ppm 275 mg/m3 50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	164 mg/m3	
	TWA	40 ppm 82 mg/m3	
Dimethyl ether (CAS 115-10-6)	TWA	20 ppm 1910 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	1000 ppm 220 mg/m3	
	TWA	50 ppm 220 mg/m3 50 ppm	
Talc (CAS 14807-96-6)	TWA	3 mg/m3	Respirable fraction.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	3 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	870 mg/m3	
	TWA	200 ppm 435 mg/m3 100 ppm	
Zinc oxide (CAS 1314-13-2)	STEL	3 mg/m3	Respirable fume.
	TWA	3 mg/m3	Respirable fume.

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

Components	Type	Value	Form
1-METHOXY-2-PROPANOL ; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	STEL	560 mg/m3	
	TWA	150 ppm 375 mg/m3 100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	548 mg/m3	
		100 ppm	

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

Components	Type	Value	Form
	TWA	274 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	416 mg/m3	
		100 ppm	
	TWA	208 mg/m3	
		50 ppm	
Dimethyl ether (CAS 115-10-6)	STEL	958 mg/m3	
		500 ppm	
	TWA	766 mg/m3	
		400 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	552 mg/m3	
		125 ppm	
	TWA	441 mg/m3	
		100 ppm	
Talc (CAS 14807-96-6)	TWA	1 mg/m3	Respirable dust.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 mg/m3	Respirable.
		10 mg/m3	Inhalable
Xylene (CAS 1330-20-7)	STEL	441 mg/m3	
		100 ppm	
	TWA	220 mg/m3	
		50 ppm	
Zinc oxide (CAS 1314-13-2)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

**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	
	TWA	375 mg/m3	
		100 ppm	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	STEL	550 mg/m3	
		100 ppm	
	TWA	275 mg/m3	
		50 ppm	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	STEL	208 mg/m3	
		50 ppm	
	TWA	83 mg/m3	
		20 ppm	
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3	
		1000 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
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m <sup>3</sup>
		200 ppm
	TWA	442 mg/m <sup>3</sup> 100 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m <sup>3</sup>
		100 ppm
	TWA	221 mg/m <sup>3</sup> 50 ppm

**Biological limit values**

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

Components	Value	Determinant	Specimen	Sampling Time
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	3,5 mg/l	4-methylpentan-2-one	Urine	*
	35 nmol/l	4-methylpentan-2-one	Urine	*
Ethylbenzene (CAS 100-41-4)	1,5 g/g	Mandelic acid	Creatinine in urine	*
	1,5 mg/l	Ethylbenzene	Blood	*
	1,12 mol/mol	Mandelic acid	Creatinine in urine	*
	14,1 umol/l	Ethylbenzene	Blood	*
Xylene (CAS 1330-20-7)	1,5 g/g	Methylhippuric acids	Creatinine in urine	*
	1,5 mg/l	Xylene	Blood	*
	0,88 mol/mol	Methylhippuric acids	Creatinine in urine	*
	14,13 umol/l	Xylene	Blood	*

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

**Czech Republic. Limit Values for Indicators 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
Ethylbenzene (CAS 100-41-4)	1100 µmol/mmol	Mandelic acid	Creatinine in urine	*
	1500 mg/g	Mandelic acid	Creatinine in urine	*
Xylene (CAS 1330-20-7)	820 µmol/mmol	Methylhippuric acids	Creatinine in urine	*
	1400 mg/g	Methylhippuric acids	Creatinine in urine	*

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

**Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV), Social Affairs and Ministry of Health**

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	5,2 mmol/l	Mandelic acid	Urine	*
Xylene (CAS 1330-20-7)	5 mmol/l	Methylhippuric acids	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
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	2 mg/l	Méthylisobutylic étone	Urine	*
Ethylbenzene (CAS 100-41-4)	1500 mg/g	Acide mandélique	Creatinine in urine	*

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

Components	Value	Determinant	Specimen	Sampling Time
Xylene (CAS 1330-20-7)	1500 mg/g	Acides méthylhippuriques	Creatinine in 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-Methoxypropan-2-ol	Urine	*
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	0,7 mg/l	4-Methylpentan-2-on	Urine	*
Ethylbenzene (CAS 100-41-4)	250 mg/g	Mandelsäure plus Phenylglyoxyssäure	Creatinine in urine	*
Xylene (CAS 1330-20-7)	2000 mg/l	Methylhippur-(Tolur-) säure (alle Isomere)	Urine	*

\* - 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
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	3,5 µg/l	Methyl isobutyl ketone	Urine	*
	35 µmol/l	Methyl isobutyl ketone	Urine	*
Ethylbenzene (CAS 100-41-4)	1110 µmol/mmol	mandelic acid	Creatinine in urine	*
	1500 mg/g	mandelic acid	Creatinine in urine	*
Xylene (CAS 1330-20-7)	860 µmol/mmol	methyl hippuric acids	Creatinine in urine	*
	1500 mg/g	methyl hippuric acids	Creatinine in 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
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	2,36 mg/g	Methyl isobutyl ketone	Creatinine in urine	*
	3,5 mg/l	Methyl isobutyl ketone	Urine	*
Ethylbenzene (CAS 100-41-4)	8,03 mg/g	2 and 4-ethylphenol	Creatinine in urine	*
	12 mg/l	2 and 4-ethylphenol	Urine	*
Xylene (CAS 1330-20-7)	1334 mg/g	Methylhippuric acids	Creatinine in urine	*
	2000 mg/l	Methylhippuric acids	Urine	*
	1,5 mg/l	Xylene	Blood	*

\* - 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
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	1 mg/l	Metilisobutilcetona	Urine	*

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

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	700 mg/g	Suma del ácido mandélico y el ácido fenilgloxílico	Creatinine in urine	*
Xylene (CAS 1330-20-7)	1 g/g	Ácidos metilhipúricos	Creatinine in 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	*
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	0,7 mg/l	4-Methylpentan-2-on	Urine	*
Ethylbenzene (CAS 100-41-4)	600 mg/g	Mandelsäure plus Phenylglyoxylsäure	Creatinine in urine	*
Xylene (CAS 1330-20-7)	2 g/l	Methyl-Hippursäure	Urine	*

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

**UK. EH40 Biological Monitoring Guidance Values (BMGVs)**

Components	Value	Determinant	Specimen	Sampling Time
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	20 umol/l	4-Methylpentan-2-one	Urine	*
Xylene (CAS 1330-20-7)	650 mmol/mol	Methyl hippuric acid	Creatinine in 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
<b>1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)</b>			
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
<b>2-Methoxy-1-methylethyl acetate (CAS 108-65-6)</b>			
Long-term, Local, Inhalation	33 mg/m3	2	respiratory tract irritation
Long-term, Systemic, Dermal	320 mg/kg bw/day	16,8	Repeated dose toxicity
Long-term, Systemic, Inhalation	33 mg/m3	2	respiratory tract irritation
Long-term, Systemic, Oral	36 mg/kg bw/day	28	Repeated dose toxicity
<b>4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)</b>			
Long-term, Local, Inhalation	14,7 mg/m3		
Short-term, Local, Inhalation	155,2 mg/m3		
<b>Dimethyl ether (CAS 115-10-6)</b>			
Long-term, Systemic, Inhalation	471 mg/m3	25	Repeated dose toxicity
<b>Ethylbenzene (CAS 100-41-4)</b>			
Long-term, Systemic, Inhalation	15 mg/m3	5	Repeated dose toxicity
Long-term, Systemic, Oral	1,6 mg/kg bw/day	40	Repeated dose toxicity
<b>Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)</b>			
Long-term, Systemic, Dermal	83 mg/kg	1	Repeated dose toxicity
Long-term, Systemic, Inhalation	2,5 mg/m3	1	Repeated dose toxicity
<b>Xylene (CAS 1330-20-7)</b>			
Long-term, Local, Inhalation	65,3 mg/m3	1,7	irritation respiratory tract
Long-term, Systemic, Dermal	125 mg/kg bw/day	1,7	Neurotoxicity
Short-term, Local, Inhalation	260 mg/m3	1,7	Neurotoxicity

**Workers**

Components	Value	Assessment factor	Notes
<b>1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)</b>			
Long-term, Systemic, Dermal	183 mg/kg bw/day	10,08	Repeated dose toxicity
Long-term, Systemic, Inhalation	369 mg/m <sup>3</sup>		Repeated dose toxicity
Short-term, Local, Inhalation	553,5 mg/m <sup>3</sup>		Neurotoxicity
Short-term, Systemic, Inhalation	553,5 mg/m <sup>3</sup>		Neurotoxicity
<b>2-Methoxy-1-methylethyl acetate (CAS 108-65-6)</b>			
Long-term, Systemic, Dermal	796 mg/kg bw/day	10,08	Repeated dose toxicity
Long-term, Systemic, Inhalation	275 mg/m <sup>3</sup>	6	respiratory tract irritation
Short-term, Local, Inhalation	550 mg/m <sup>3</sup>	3	respiratory tract irritation
<b>4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)</b>			
Long-term, Local, Inhalation	83 mg/m <sup>3</sup>		
Short-term, Local, Inhalation	208 mg/m <sup>3</sup>		
<b>Dimethyl ether (CAS 115-10-6)</b>			
Long-term, Systemic, Inhalation	1894 mg/m <sup>3</sup>	12,5	Repeated dose toxicity
<b>Ethylbenzene (CAS 100-41-4)</b>			
Long-term, Systemic, Dermal	180 mg/kg bw/day	12	Repeated dose toxicity
Long-term, Systemic, Inhalation	77 mg/m <sup>3</sup>	3	Repeated dose toxicity
Short-term, Local, Inhalation	293 mg/m <sup>3</sup>	3	irritation respiratory tract
<b>Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)</b>			
Long-term, Systemic, Dermal	83 mg/kg	1	Repeated dose toxicity
Long-term, Systemic, Inhalation	5 mg/m <sup>3</sup>	1	Repeated dose toxicity
<b>Xylene (CAS 1330-20-7)</b>			
Long-term, Local, Inhalation	221 mg/m <sup>3</sup>	1	irritation respiratory tract
Long-term, Systemic, Dermal	212 mg/kg bw/day	1	Neurotoxicity
Long-term, Systemic, Inhalation	221 mg/m <sup>3</sup>	1	Neurotoxicity

**Predicted no effect concentrations (PNECs)**

Components	Value	Assessment factor	Notes
<b>1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)</b>			
Freshwater	10 mg/l	100	
Sediment (freshwater)	52,3 mg/kg		
Soil	4,59 mg/kg		
STP	100 mg/l	10	
<b>2-Methoxy-1-methylethyl acetate (CAS 108-65-6)</b>			
Freshwater	0,635 mg/l	100	
Sediment (freshwater)	3,29 mg/kg		
Soil	0,29 mg/kg		
STP	100 mg/l	10	
<b>4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)</b>			
Freshwater	0,6 mg/l	50	
Sediment (freshwater)	8,27 mg/kg		
Soil	1,3 mg/kg		
<b>Dimethyl ether (CAS 115-10-6)</b>			
Freshwater	0,155 mg/l	1000	
Sediment (freshwater)	0,681 mg/kg		
Soil	0,045 mg/kg		
STP	160 mg/l	10	
<b>Ethylbenzene (CAS 100-41-4)</b>			
Freshwater	0,1 mg/l		
Secondary poisoning	0,02 g/kg		Oral
Sediment (freshwater)	13,7 mg/kg		
Soil	2,68 mg/kg		
STP	9,6 mg/l	10	
<b>Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)</b>			
Freshwater	20,6 µg/l	1	
Secondary poisoning	0,017 g/kg	90	Oral
Sediment (freshwater)	117,8 mg/kg	1	
Soil	35,6 mg/kg	1	
<b>titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)</b>			
Freshwater	0,184 mg/l	10	
Sediment (freshwater)	1000 mg/kg	100	
Soil	100 mg/kg	10	

STP	100 mg/l	10
Xylene (CAS 1330-20-7)		
Freshwater	0,327 mg/l	1
Sediment (freshwater)	12,46 mg/kg	1
Soil	2,31 mg/kg	1
STP	6,58 mg/l	1

## Exposure guidelines

### Austria MAK: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Belgium OELs: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Bulgaria OELs: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Croatia ELVs: Skin designation

2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Czech Republic PELs: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Denmark GV: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Estonia OELs: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### EU Exposure Limit Values: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### Finland Exposure Limit Values: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

### France INRS: Skin designation

1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
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2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Germany DFG MAK (advisory): Skin designation</b>	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Germany TRGS 900 Limit Values: Skin designation</b>	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Greece OEL: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Hungary OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Iceland OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Ireland Exposure Limit Values: Skin designation</b>	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Italy OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Danger of cutaneous absorption
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Danger of cutaneous absorption
Ethylbenzene (CAS 100-41-4)	Danger of cutaneous absorption
Xylene (CAS 1330-20-7)	Danger of cutaneous absorption
<b>Latvia OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Lithuania OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Luxembourg OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Malta OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.

Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Netherlands OELs (binding): Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Norway Exposure Limit Values: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Portugal OELs: Skin designation</b>	
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Romania OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Slovakia OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Spain OELs: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Sweden Threshold Limit Values: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>Switzerland SUVA Limit Values at the Workplace: Skin designation</b>	
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.
<b>UK EH40 WEL: Skin designation</b>	
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)	Can be absorbed through the skin.
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

## 8.2. Exposure controls

<b>Appropriate engineering controls</b>	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.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	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.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles). Use eye protection conforming to EN 166.
<b>Skin protection</b>	
<b>- Hand protection</b>	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.
<b>- Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge. (Filter type AX)
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	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.
<b>Environmental exposure controls</b>	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

<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Colour</b>	See color cap.
<b>Odour</b>	Characteristic odor.
<b>Melting point/freezing point</b>	-95 °C (-139 °F) estimated
<b>Boiling point or initial boiling point and boiling range</b>	116,5 °C (241,7 °F) estimated
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	1,2 % estimated
<b>Explosive limit – upper (%)</b>	12 % estimated
<b>Flash point</b>	23,0 °C (73,4 °F) Closed cup
<b>Auto-ignition temperature</b>	> 200 °C (> 392 °F)
<b>Decomposition temperature</b>	Not available.
<b>pH</b>	Not applicable.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble in water
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	1,24 g/cm <sup>3</sup> at 20°C
<b>Particle characteristics</b>	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

<b>Explosive properties</b>	Not explosive.
<b>Heat of combustion</b>	22,27 kJ/g estimated
<b>Oxidising properties</b>	Not oxidising.

Specific gravity 1,77 estimated  
 VOC 618 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.
- 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** 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** 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.

Product	Species	Test Results
ZINC PRIMER		
<b>Acute</b>		
<b>Dermal</b>		
ATEmix		4988,66 mg/kg
<b>Components</b>		
<b>Species</b>		
<b>Test Results</b>		
1-METHOXY-2-PROPANOL; MONOPROPYLENE GLYCOL METHYL ETHER (CAS 107-98-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	13 g/kg
<b>Inhalation</b>		
LC50	Rat	54,6 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	5,71 g/kg
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	5100 mg/kg
<b>Inhalation</b>		
LC50	Rat	30 mg/l/4h
<b>Oral</b>		
LD50	Rat	8532 mg/kg
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 16000 mg/kg
<b>Inhalation</b>		
LC50	Rat	11 mg/l/4h
<b>Oral</b>		
LD50	Rat	2080 mg/kg

Components	Species	Test Results
Dimethyl ether (CAS 115-10-6)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	308,5 mg/l, 4 Hours
Ethylbenzene (CAS 100-41-4)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	17800 mg/kg
<b>Inhalation</b>		
LC50	Rat	17,2 mg/l/4h
<b>Oral</b>		
LD50	Rat	3500 mg/kg
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	10000 mg/kg
<b>Inhalation</b>		
LC50		> 5 mg/l
<b>Oral</b>		
LD50	Rat	10000 mg/kg
Xylene (CAS 1330-20-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	12126 mg/kg
<b>Inhalation</b>		
LC50	Rat	27124 mg/m <sup>3</sup>
<b>Oral</b>		
LD50	Rat	3523 mg/kg
Zinc oxide (CAS 1314-13-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/l
<b>Inhalation</b>		
LC50	Mammal	2500 mg/m <sup>3</sup>
<b>Oral</b>		
LD50	Mouse	7950 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory sensitisation</b>	Based on available data, the classification criteria are not met.	
<b>Skin sensitisation</b>	Based on available data, the classification criteria are not met.	
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.	
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure.	
<b>Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)</b>		
Not listed.		
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	2B Possibly carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	2B Possibly carcinogenic to humans.	
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.	

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

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7) Carcinogenic, Category 1A

Zinc oxide (CAS 1314-13-2) Carcinogenic, Category 1A

<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Mixture versus substance information</b>	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)			
<b>Aquatic</b>			
<i>Acute</i>			
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
2-Methoxy-1-methylethyl acetate (CAS 108-65-6)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	> 1000 mg/l, 72 h
Crustacea	EC50	Daphnia	> 400 mg/l, 48 h
Fish	LC50	Fish	> 100 - < 180 mg/l, 96 h
4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	980 mg/l, 48 h
Crustacea	EC50	Water flea (Daphnia magna)	3682 mg/l, 24 hours
Fish	LC50	Carp (Leuciscus idus melanotus)	672 mg/l, 48 hours
Dimethyl ether (CAS 115-10-6)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	4,4 mg/l
Fish	LC50	Fish	4,1 mg/l
Ethylbenzene (CAS 100-41-4)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	63 mg/l, 3 h
Crustacea	EC50	Crustacea	75 mg/l, 48 h
Fish	LC50	Fish	42,3 mg/l, 96 h
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Mummichog ( <i>Fundulus heteroclitus</i> )	> 1000 mg/l, 96 hours
Zinc oxide (CAS 1314-13-2)			
<i>Acute</i>			
	EC50	Selenastrum capricornutum (new name Pseudokirchnerella subca)	0,137 mg/l, 72 hours
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	0,413 mg/l, 48 hours
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	82 µg/l, 7 days

**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
4-methylpentan-2-one; isobutyl methyl ketone	1,31
Dimethyl ether	0,1
Ethylbenzene	3,15

**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** The product contains volatile organic compounds which have a photochemical ozone creation potential.  
GWP: 1

#### Substance Global Warming Potential per (Annex IV), Regulation 517/2014/EU on fluorinated greenhouse gases, as amended

Dimethyl ether (CAS 115-10-6)	1
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### 12.8. Additional information

#### Estonia Dangerous substances in soil Data

4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)	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
Ethylbenzene (CAS 100-41-4)	ETHYLBENZENE 0,1 mg/kg ETHYLBENZENE 5 mg/kg ETHYLBENZENE 50 mg/kg
Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)	Zinc (Zn) 1000 mg/kg Zinc (Zn) 200 mg/kg Zinc (Zn) 500 mg/kg
trizinc bis(orthophosphate) (CAS 7779-90-0)	Zinc (Zn) 1000 mg/kg Zinc (Zn) 200 mg/kg Zinc (Zn) 500 mg/kg
Xylene (CAS 1330-20-7)	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
Zinc oxide (CAS 1314-13-2)	Zinc (Zn) 1000 mg/kg Zinc (Zn) 200 mg/kg Zinc (Zn) 500 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	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).
<b>Contaminated packaging</b>	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.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	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.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

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

### IATA

<b>14.1. UN number</b>	UN1950
<b>14.2. UN proper shipping name</b>	Aerosols, flammable
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	NA
<b>14.5. Environmental hazards</b>	No.
<b>ERG Code</b>	10L
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### Other information

<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

### IMDG

<b>14.1. UN number</b>	UN1950
<b>14.2. UN proper shipping name</b>	Aerosols, flammable
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	NA
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-D, S-U
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

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



## 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**

Fatty acids, C6-19-branched, zinc salts (CAS 68551-44-0)

trizinc bis(orthophosphate) (CAS 7779-90-0)

Zinc oxide (CAS 1314-13-2)

Ethylbenzene (CAS 100-41-4)

Xylene (CAS 1330-20-7)

**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**

Dimethyl ether (CAS 115-10-6)

Ethylbenzene (CAS 100-41-4)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ] (CAS 13463-67-7)

Xylene (CAS 1330-20-7)

**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)

2-Methoxy-1-methylethyl acetate (CAS 108-65-6)

4-methylpentan-2-one; isobutyl methyl ketone (CAS 108-10-1)

Dimethyl ether (CAS 115-10-6)

Ethylbenzene (CAS 100-41-4)

trizinc bis(orthophosphate) (CAS 7779-90-0)

Xylene (CAS 1330-20-7)

Zinc oxide (CAS 1314-13-2)

#### 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.  
Not available.

### References

#### 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

H220 Extremely flammable gas.  
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.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

#### Revision information

None.

#### Training information

Follow training instructions when handling this material.

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