



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Commission Regulation (EU) 2020/878
and Regulation (EC) No. 1272/2008

Issuing Date 12-Oct-2022

Revision Date 12-Oct-2022

Revision Number 1

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

1.1. Product identifier

Product Name	Methanol
REACH registration number	01-2119433307-44-0031
EC No (EU Index No)	200-659-6
CAS No	67-56-1
Synonyms	Methyl alcohol, wood alcohol, methyl hydroxide
Pure substance/mixture	Substance
Molecular weight	32.04
Other information	Chemical Family - Alcohols

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

Recommended use	Industrial use, Professional use, Consumer use: Solvent Fuels Raw material Cleaning agent Laboratory reagent Use in oil and gas field drilling and production operations Water treatment chemicals, wastewater Consumer use of cleaning agents and de-icers
Uses advised against	None known

1.3. Details of the supplier of the safety data sheet

Supplier

Methanex Europe SA/NV
Waterloo Office Park - Building P
Drève Richelle 161 - P Box 31
B-1410 Waterloo
Belgium
Phone: +(32) 2 352 06 70

For further information, please contact

E-mail address reach@methanex.com

1.4. Emergency telephone number

Emergency telephone Carechem 24 International: +44 (0) 1235 239 670 (24h/7d)

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture***Regulation (EC) No 1272/2008*

Flammable liquids	Category 2 - (H225)
Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Vapors)	Category 3 - (H331)
Specific target organ toxicity (single exposure)	Category 1 - (H370)

2.2. Label elements

Contains Methanol

**Signal word**

Danger

Hazard statements

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H370 - Causes damage to organs

H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P321 - Specific treatment (see supplemental first aid instructions on this label)

P370 + P378 - In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Additional information

This product requires tactile warnings if supplied to the general public. This product requires child resistant fastenings if supplied to the general public.

2.3. Other hazards

Harmful to aquatic life. Risk of blindness after swallowing the product.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical name	Weight-%	REACH	EC No (EU)	Classification	Specific	M-Factor	M-Factor
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		registration number	Index No)	according to Regulation (EC) No. 1272/2008 [CLP]	concentration limit (SCL)		(long-term)
Methanol 67-56-1	100	01-211943330 7-44-0031	200-659-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%	-	-

Additional information

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Methanol 67-56-1	100	300	No data available	3	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing is irregular or stopped, administer artificial respiration. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Get immediate medical attention.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Exposure may cause nausea, weakness and central nervous system effects, headache, vomiting, dizziness, symptoms of drunkenness. Coma and death due to respiratory failure may follow severe exposures: Medical treatment necessary. A latent period of several hours may occur between exposure and the onset of symptoms. May cause blindness.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians The severity of outcome following methanol ingestion may be more related to the time between ingestion and treatment, rather than the amount ingested; therefore, there is a need for rapid treatment of any ingestion exposure. Call a Poison Center. Antidote: Fomepizole enhances elimination of metabolic formic acid. Antidote should be administered by qualified medical personnel.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use water spray to cool fire-exposed containers. Water will not cool methanol below its flash point. Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam. Dry sand.

Unsuitable extinguishing media Do not use straight streams. Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Mixtures >20% methanol with water: flammable. Highly flammable liquid and vapor. Risk of ignition. Keep product and empty container away from heat and sources of ignition. Vapors are heavier than air and may spread along floors. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous combustion products Toxic gases or vapors. Carbon monoxide. Carbon dioxide (CO₂). Formaldehyde.

5.3. Advice for firefighters

Specific/special fire-fighting measures Methanol: Burns with invisible flame. Flame may not be visible in daylight. Cool containers with flooding quantities of water until well after fire is out. Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources

(no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Do not breathe vapor or mist.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Dispose of contents/containers in accordance with local regulations. Biodegradable at low concentrations. Soluble in water. When released, this product is expected to evaporate. Contact authorities in the event of pollution of soil and aquatic environment or discharge into drains. Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Small spill: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use non-sparking tools. Collect spillage. Place in appropriate chemical waste container. Clean contaminated surface thoroughly. Large spill: Dike far ahead of spill; use dry sand to contain the flow of material. Use clean non-sparking tools to collect absorbed material.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections Safe handling: see Section 7. Personal protection equipment (PPE): see Section 8. Disposal: see Section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use according to package label instructions. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Do not eat, drink or smoke when using this product. Handle product only in closed system or provide appropriate exhaust ventilation. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Do not enter confined area unless adequately ventilated.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with local regulations. Keep unauthorized personnel away. Store locked up.

Storage class (TRGS 510)

Storage class 3.

7.3. Specific end use(s)**Specific use(s)**

Manufacture of substance. Formulation & (re)packing of substances and mixtures Distribution of formulations. Use as an intermediate. Use as a Process chemical Distribution of substance. Use as a Fuel (use in industrial settings). Use in Cleaning Agents (use in industrial settings). Use as laboratory reagent/agent (use in industrial settings). Use as wastewater treatment chemical (use in industrial settings). Use in Oilfield drilling and production operations (use in industrial settings). Use as a Fuel (use in professional settings). Use in Cleaning Agents (use in professional settings). Use as laboratory reagent/agent (use in professional settings). Use in Cleaning Agents Use in De-icing and Anti-icing agents (consumer use) (spray products). Use in Cleaning Agents Use in De-icing and Anti-icing agents (consumer use) (liquid products). Use as Fuel additive (consumer use) (outdoor use).

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ *	TWA: 200 ppm TWA: 260 mg/m ³ STEL 800 ppm STEL 1040 mg/m ³ H*	TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ D*	TWA: 200 ppm TWA: 260.0 mg/m ³ K*	TWA: 200 ppm TWA: 260 mg/m ³ *
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Methanol 67-56-1	* TWA: 200 ppm TWA: 260 mg/m ³	TWA: 250 mg/m ³ Ceiling: 1000 mg/m ³ D*	TWA: 200 ppm TWA: 260 mg/m ³ H*	TWA: 200 ppm TWA: 250 mg/m ³ STEL: 250 ppm STEL: 350 mg/m ³ A*	TWA: 200 ppm TWA: 270 mg/m ³ STEL: 250 ppm STEL: 330 mg/m ³ iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 1000 ppm STEL: 1300 mg/m ³ *	TWA: 100 ppm TWA: 130 mg/m ³ H*	TWA: 100 ppm TWA: 130 mg/m ³ Peak: 200 ppm Peak: 260 mg/m ³ *	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³ *	TWA: 260 mg/m ³ b*
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 600 ppm STEL: 780 mg/m ³ Sk*	TWA: 200 ppm TWA: 260 mg/m ³ cute*	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ cute*	TWA: 200 ppm TWA: 260 mg/m ³ Ada*	O* TWA: 200 ppm TWA: 260 mg/m ³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Methanol 67-56-1	Peau* TWA: 200 ppm TWA: 260 mg/m ³	skin* TWA: 200 ppm TWA: 260 mg/m ³	TWA: 133 mg/m ³ H*	TWA: 100 ppm TWA: 130 mg/m ³ STEL: 150 ppm STEL: 162.5 mg/m ³ H*	STEL: 300 mg/m ³ TWA: 100 mg/m ³ Prohibited - substances or mixtures containing

					Methanol in weight concentration >3%;except fuels used in the model building, powerboating, fuel cells and biofuels skóra*
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm Cutânea*	TWA: 200 ppm TWA: 260 mg/m ³ P*	TWA: 200 ppm TWA: 260 mg/m ³ K*	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 800 ppm STEL: 1040 mg/m ³ K*	TWA: 200 ppm TWA: 266 mg/m ³ via dérmica*
Chemical name	Sweden		Switzerland		United Kingdom
Methanol 67-56-1	NGV: 200 ppm NGV: 250 mg/m ³ Vägledande KGV: 250 ppm Vägledande KGV: 350 mg/m ³ H*		TWA: 200 ppm TWA: 260 mg/m ³ STEL: 400 ppm STEL: 520 mg/m ³ H*		TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ Sk*

Other information on limit values OEL values in accordance with Commission Directive 2000/39/EC of 8 June 2003, as amended, establishing a first list of indicative occupational exposure limit values in the implementation of Council Directive 98/24/EC

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Methanol 67-56-1	-	-	-	7.0 mg/g Creatinine - urine (Methanol) - at the end of the work shift	0.47 mmol/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol end of shift)
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Methanol 67-56-1	-	-	15 mg/L - urine (Methanol) - end of shift	15 mg/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after several shifts) 15 mg/L - BAT (for long-term exposures: at the end of the shift after several shifts) urine 15 mg/L - BAT (end of exposure or end of shift) urine	15 mg/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after several shifts)
Chemical name	Hungary		Ireland	Italy MDLPS	Italy AIDII
Methanol 67-56-1	30 mg/L (urine - Methanol end of shift) 940 µmol/L (urine - Methanol end of shift)		15 mg/L (urine - Methanol end of shift)	-	15 mg/L - urine (Methanol) - end of shift
Chemical name	Latvia		Luxembourg	Romania	Slovakia
Methanol 67-56-1	-		-	6 mg/L - urine (Methanol) - end of shift	30 mg/L (urine - Methanol end of exposure or work shift) 30 mg/L (urine - Methanol

				after all work shifts)
Chemical name	Slovenia	Spain	Switzerland	United Kingdom
Methanol 67-56-1	15 mg/L - urine (Methanol) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	15 mg/L (urine - Methanol end of shift)	30 mg/L (urine - Methanol end of shift, and after several shifts (for long-term exposures)) 936 µmol/L (urine - Methanol end of shift, and after several shifts (for long-term exposures))	-

Derived No Effect Level (DNEL) - Workers No information available

Chemical name	Oral	Dermal	Inhalation
Methanol 67-56-1	-	20 mg/kg bw/day [4] [6] 20 mg/kg bw/day [4] [7]	130 mg/m ³ [4] [6] 130 mg/m ³ [4] [7] 130 mg/m ³ [5] [6] 130 mg/m ³ [5] [7]

Derived No Effect Level (DNEL) - General Public No information available.

Chemical name	Oral	Dermal	Inhalation
Methanol 67-56-1	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	26 mg/m ³ [4] [6] 26 mg/m ³ [4] [7] 26 mg/m ³ [5] [6] 26 mg/m ³ [5] [7]

Predicted No Effect Concentration (PNEC) No hazard identified. With high probability the substance is not hazardous to aquatic life. No environmental risk assessment is necessary.

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Methanol 67-56-1	20.8 mg/L	1540 mg/L	2.08 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Methanol 67-56-1	77 mg/kg sediment dw	7.7 mg/kg sediment dw	100 mg/L	100 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls

Provide local exhaust ventilation. Handle product only in closed system or provide appropriate exhaust ventilation. Use explosion-proof ventilating equipment. All equipment used when handling the product must be grounded. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles. Eye protection must conform to standard EN 166.

Hand protection	Wear suitable gloves. Impervious gloves. Butyl rubber. Gloves must conform to standard EN 374.
Skin and body protection	Wear suitable protective clothing (EN ISO 6529).
Respiratory protection	Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode. Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator (EN 137).
General advice	PPE assigned in accordance with Council Directive 89/656/EEC of 30 November 1989, as amended, concerning the minimum safety and health requirements for the use by workers of personal protective equipment at the workplace.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product.
Environmental exposure controls	Avoid release to the environment. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid
Physical state	Liquid
Color	Clear
Odor	Alcohol
Odor threshold	4.2 - 5960 ppm

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	-97.8 °C	No data available
Initial boiling point and boiling range	64.7 °C	No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits	36.5%	No data available
Lower flammability or explosive limits	5.5%	No data available
Flash point	11 °C	No data available
Autoignition temperature	464 °C	No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity	0.8 cP	@ 20 °C
Water solubility	Miscible in water	No data available
Solubility(ies)		No data available
Partition coefficient	-0.77	log Pow
Vapor pressure	12.8 kPa	@ 20 °C
Relative density	0.791 - 0.793	@20°C
Bulk density		No data available
Liquid Density		No data available

Vapor density	1.1	@ 20 °C (air = 1)
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

Molecular weight	32.04
VOC content	100%

9.2.1. Information with regard to physical hazard classes

Explosive properties	Vapors may form explosive mixtures with air
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9.2.2. Other safety characteristics

Evaporation rate	4.1 Butyl acetate = 1
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SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity	Containers may rupture or explode if exposed to heat.
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10.2. Chemical stability

Stability	Stable under normal conditions. May form flammable/explosive vapor-air mixture. Hygroscopic.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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10.4. Conditions to avoid

Conditions to avoid	Heat, flames and sparks. Excessive heat. Containers may rupture or explode if exposed to heat.
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10.5. Incompatible materials

Incompatible materials	Lead. Aluminum. Zinc. Oxidizing agent. Strong acids. Strong bases. Polyethylene. Polyvinyl chloride (PVC). Nitriles.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Carbon monoxide. Carbon dioxide (CO ₂). Ketones. Formaldehyde.
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SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation	Toxic by inhalation.
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Eye contact	May cause irritation.
Skin contact	Toxic in contact with skin.
Ingestion	Toxic if swallowed. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Ingestion causes nausea, weakness and central nervous system effects, headache, vomiting, dizziness, symptoms of drunkenness. Coma and death due to respiratory failure may follow severe exposures: Medical treatment necessary. A latent period of several hours may occur between exposure and the onset of symptoms.
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Acute toxicity**Numerical measures of toxicity**

Acute Toxicity Estimate (ATE) values provided as a reflection of the hazard classification.

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	100 mg/kg
ATEmix (dermal)	300 mg/kg
ATEmix (inhalation-vapor)	3 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause skin irritation. Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	May cause mild to moderate irritation.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive toxicity	No information available.
STOT - single exposure	Causes damage to organs.
STOT - repeated exposure	No information available.
Target organ effects	Central nervous system. Optic nerve.
Aspiration hazard	No information available.

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties	This product does not contain any known or suspected endocrine disruptors.
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11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity Avoid release to the environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methanol 67-56-1	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation Not expected to bioaccumulate.

Bioconcentration factor (BCF) <10

Component Information

Chemical name	Partition coefficient
Methanol	-0.77

12.4. Mobility in soil

Mobility in soil Adsorbs on soil.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

Chemical name	PBT and vPvB assessment
Methanol 67-56-1	The substance is not PBT / vPvB PBT assessment does not apply Further information relevant for the PBT assessment is necessary

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Recover or recycle if possible. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
Waste codes / waste designations according to EWC / AVV	Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC. According to the European Waste Catalog, Waste Codes are not product specific, but application specific. 07 01 04*.
Other information	Waste disposal according to directive 2008/98/EC, as amended, covering waste and dangerous waste.

SECTION 14: Transport information**IMDG**

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	METHANOL
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, METHANOL, 3 (6.1), II, (11°C C.C.)
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	279
EmS-No	F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number	UN1230
14.2 UN proper shipping name	METHANOL
14.3 Transport hazard class(es)	3
Subsidiary hazard class	6.1
14.4 Packing group	II
Description	UN1230, METHANOL, 3 (6.1), II
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
Classification code	FT1

ADR

14.1 UN number or ID number	UN1230
14.2 UN proper shipping name	METHANOL
14.3 Transport hazard class(es)	3
Subsidiary class	6.1
14.4 Packing group	II
Description	UN1230, METHANOL, 3 (6.1), II
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	

Special Provisions 279
 Classification code FT1
 Tunnel restriction code (D/E)

IATA

14.1 UN number or ID number UN1230
 14.2 UN proper shipping name Methanol
 14.3 Transport hazard class(es) 3
 Subsidiary hazard class 6.1
 14.4 Packing group II
 Description UN1230, Methanol, 3 (6.1), II
 14.5 Environmental hazards Not applicable
 14.6 Special Precautions for Users
 Special Provisions A113
 ERG Code 3L
 Note: None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations**

Denmark List of Undesirable Substances (LOUS): Solvents (used in a wide range of products)

France**Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
Methanol 67-56-1	RG 84

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

TA Luft (German Air Pollution Control Regulation)

Class NK (Nicht Klassifiziert-Not Classified) **Technical Share of Air (%)** No information available

Netherlands**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 94/33/EC on the protection of young people at work Take note of Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Methanol - 67-56-1	Item 69 Item 75	-

Persistent Organic Pollutants

Not applicable

Chemical name	Persistent Organic Pollutants per (EC) 2019/1021 - Annex Number
Methanol - 67-56-1	-

Export Notification requirements

Not applicable

Chemical name	European Export/Import Restrictions per (EC) 689/2008 - Annex Number
Methanol - 67-56-1	-

Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

H3 - STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Methanol - 67-56-1	500	5000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Chemical name	Ozone depletion potential (ODP)	Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Methanol - 67-56-1	-	-

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Methanol - 67-56-1	-

Biocidal Products Regulation (EU) No 528/2012 (BPR)**EU - Water Framework Directive (2000/60/EC)**

Chemical name	EU - Water Framework Directive (2000/60/EC)
Methanol - 67-56-1	-

EU - Environmental Quality Standards (2008/105/EC)

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Methanol - 67-56-1	-

International Inventories

TSCA	Listed
DSL/NDL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
IECSC	Listed
KECL	Listed
PICCS	Listed
AICS	Listed

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**15.2. Chemical safety assessment**

Chemical Safety Report

A Chemical Safety Assessment has been carried out for this substance. Date of most recent Chemical Safety Report: 27/04/2021.

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H370 - Causes damage to organs

Legend

ATE: Acute Toxicity Estimate

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

*

Skin designation

Germany MAK Germany Maximum Concentrations

Italy REL

Italy Recommended Exposure Limits

H*, K*, A*, iho*, Skin Notation

Sk*

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Issuing Date 12-Oct-2022

Revision Date 12-Oct-2022

Revision Note Initial Release.

This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006

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End of Safety Data Sheet