



Methanol

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Revision Date: 06/02/2020 Date of Issue: 16/02/2015 Supersedes Date: 11/05/2018 Version: 3.2

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

1.1. Product identifier

Product Form	: Substance
Product Name	: Methanol
Chemical Name	: Aliphatic Alcohol
CAS-No.	: 67-56-1
Formula	: CH ₃ OH
Synonyms	: Carbinol, Columbian Spirits, Methyl Alcohol, Pyrolygneous Spirits, Wood Alcohol, Methylol, Wood Naptha, Wood Spirits, Manhattan Spirits, Pyroxylic Spirits, Colonial Spirits, Methyl Hydroxide, Monohydroxymethane

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Solvent, Fuel, Feedstock

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Atlantic Methanol Production Company LLC
Ugland House, P.O. Box 309
Georgetown, Grand Cayman
Cayman Islands, British West Indies
www.atlanticmethanol.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 CHEMTREC (United States, Canada, Puerto Rico, Virgin Islands) 1-703-527-3887 CHEMTREC (International and Maritime)
00 32 3 575 55 55 SGS EMERGENCY RESPONSE (24/7, English and Spanish)
240-222-245-367 (mobile) or 1-713-328-1340 (land line via USA) Atlantic Methanol Production Company LLC (Emergency Contact for Malabo, Equatorial Guinea, West Africa)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification According to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation:vapour)	H331
STOT SE 1	H370

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H370 - Causes damage to organs (visual organs, central nervous system).

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use non-sparking tools.

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P243 - Take action to prevent static discharges.
P260 - Do not breathe vapours, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P311 - If exposed or concerned: Call a POISON CENTER/doctor.
P311 - Call a POISON CENTER or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P330 - Rinse mouth.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Methanol
CAS-No. : 67-56-1

Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	99 - 100	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	(3 =<C < 10) STOT SE 2, H371 (10 =<C < 100) STOT SE 1, H370

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Seek immediate medical attention. Immediately call a poison center or doctor/physician.

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- First-aid measures after skin contact : Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Immediately call a poison center or doctor/physician.
- First-aid measures after eye contact : Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

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

- Symptoms/effects : Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs (visual organs, central nervous system).
- Symptoms/effects after inhalation : Toxic if inhaled. Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. Symptoms may include headache, drowsiness, dizziness, nausea, vomiting, visual disturbance, and optic nerve damage.
- Symptoms/effects after skin contact : This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Symptoms may include redness, dry skin, dermatitis, and defatting of the skin.
- Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.
- Symptoms/effects after ingestion : Toxic if swallowed. Symptoms may include headache, drowsiness, dizziness, nausea, visual disturbance, optic nerve damage (blindness), abdominal pain, shortness of breath, vomiting, convulsions, and unconsciousness. This material is toxic in small amounts orally, and can cause adverse health effects or death.
- Chronic symptoms : Causes damage to organs. Methanol, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

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

If you feel unwell, seek medical advice (show the label where possible). If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.
- Unsuitable extinguishing media : Methanol-water mixtures containing as little as 21% methanol by volume (25% by weight) are also flammable liquids. Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable or explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
- Reactivity : Reacts violently with strong oxidisers. Increased risk of fire or explosion.
- Hazardous decomposition products in case of fire : Carbon oxides (CO, CO₂). Formaldehyde. Acrid smoke and irritating fumes.

5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.
- Firefighting instructions : Do not breath fumes from fires or vapours from decomposition. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Closed containers exposed to heat may explode. Do not allow run-off from fire-fighting to enter drains or water courses.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not breathe vapour, mist or spray. Do not get in eyes, on skin, or on clothing. Handle in accordance with good industrial hygiene and safety practice. Use special care to avoid static electric charges. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protective equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel. Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Transfer spilled material to a suitable container for disposal. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

Precautions for safe handling : Do not breathe vapours, mist, or spray. Do not get in eyes, on skin, or on clothing. Use only non-sparking tools. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use appropriate personal protective equipment (PPE). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Handle empty containers with care because they may still present a hazard. Use only outdoors or in a well-ventilated area.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Ensure adequate ventilation. Comply with applicable regulations.

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- Storage conditions : Store in a cool, dry, well-ventilated place. Do not store near heat, flame, or other potential ignition sources. Do not store with oxidizers. Keep containers tightly closed. Do not store in unlabeled containers. Ground all equipment containing this material. All electrical equipment in areas where this material is stored or handled must meet all applicable requirements of the NFPA's National Electrical Code (NEC). Store and transport in accordance with all applicable laws. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials, Keep in fireproof place.
- Incompatible materials : Strong oxidizers such as barium, perchlorate, bromine, and chlorine. Beryllium hydride. Metals such as aluminum, magnesium, and potassium. Chloroform and sodium methoxide. Diethyl zinc. Acetyl bromide. Sodium hypochlorite.

7.3. Specific end use(s)

Solvent, Fuel, Feedstock

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol (67-56-1)		
EU	IOELV TWA (mg/m ³)	260 mg/m ³
EU	IOELV TWA (ppm)	200 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m ³)	260 mg/m ³
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m ³)	1040 mg/m ³
Austria	MAK Short time value (ppm)	800 ppm
Austria	OEL chemical category (AT)	Skin notation
Belgium	Limit value (mg/m ³)	266 mg/m ³
Belgium	Limit value (ppm)	200 ppm
Belgium	Short time value (mg/m ³)	333 mg/m ³
Belgium	Short time value (ppm)	250 ppm
Belgium	OEL chemical category (BE)	Skin, Skin notation
Bulgaria	OEL TWA (mg/m ³)	260 mg/m ³
Bulgaria	OEL TWA (ppm)	200 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	260 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Croatia	OEL chemical category (HR)	Skin notation
Croatia	Croatia - BLV	7 mg/g creatinine Parameter: Methanol - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)
Cyprus	OEL TWA (mg/m ³)	260 mg/m ³
Cyprus	OEL TWA (ppm)	200 ppm
Cyprus	OEL chemical category (CY)	Skin-potential for cutaneous absorption
France	VLE (mg/m ³)	1300 mg/m ³
France	VLE (ppm)	1000 ppm
France	VME (mg/m ³)	260 mg/m ³ (restrictive limit)
France	VME (ppm)	200 ppm (restrictive limit)
France	OEL chemical category (FR)	Risk of cutaneous absorption
France	France - BLV	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (Background noise on non-exposed subjects)

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Methanol (67-56-1)		
Germany	Occupational exposure limit value (mg/m ³)	270 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm)	200 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 Biological limit value	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift 30 mg/l Parameter: Methanol - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts
Germany	Chemical category	Skin notation
Gibraltar	Eight hours mg/m ³	260 mg/m ³
Gibraltar	Eight hours ppm	200 ppm
Gibraltar	OEL chemical category (GI)	Skin notation
Greece	OEL TWA (mg/m ³)	260 mg/m ³
Greece	OEL TWA (ppm)	200 ppm
Greece	OEL STEL (mg/m ³)	325 mg/m ³
Greece	OEL STEL (ppm)	250 ppm
Greece	OEL chemical category (GR)	skin - potential for cutaneous absorption
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	250 ppm
Italy	OEL TWA (mg/m ³)	260 mg/m ³
Italy	OEL TWA (ppm)	200 ppm
Italy	OEL chemical category (IT)	skin - potential for cutaneous absorption
Latvia	OEL TWA (mg/m ³)	260 mg/m ³
Latvia	OEL TWA (ppm)	200 ppm
Latvia	OEL chemical category (LV)	skin - potential for cutaneous exposure
Spain	VLA-ED (mg/m ³)	266 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	200 ppm (indicative limit value)
Spain	OEL chemical category (ES)	skin - potential for cutaneous absorption
Spain	Spain - BLV	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Switzerland	KZGW (mg/m ³)	1040 mg/m ³
Switzerland	KZGW (ppm)	800 ppm
Switzerland	MAK (mg/m ³)	260 mg/m ³
Switzerland	MAK (ppm)	200 ppm
Switzerland	OEL chemical category (CH)	Skin notation
Switzerland	Switzerland - BLV	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	133 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	266 mg/m ³
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (mg/m ³)	333 mg/m ³
United Kingdom	WEL STEL (ppm)	250 ppm
United Kingdom	WEL chemical category	Potential for cutaneous absorption
Czech Republic	Expoziční limity (PEL) (mg/m ³)	250 mg/m ³
Czech Republic	OEL chemical category (CZ)	Potential for cutaneous absorption

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Methanol (67-56-1)		
Czech Republic	Czech Republic - BLV	Parameter: Methanol - Medium: urine - Sampling time: end of shift 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Denmark	Grænseværdie (langvarig) (mg/m ³)	260 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Estonia	OEL TWA (mg/m ³)	250 mg/m ³
Estonia	OEL TWA (ppm)	200 ppm
Estonia	OEL STEL (mg/m ³)	350 mg/m ³
Estonia	OEL STEL (ppm)	250 ppm
Estonia	OEL chemical category (ET)	Skin notation
Finland	HTP-arvo (8h) (mg/m ³)	270 mg/m ³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	330 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
Finland	OEL chemical category (FI)	Potential for cutaneous absorption
Hungary	AK-érték	260 mg/m ³
Hungary	OEL chemical category (HU)	Potential for cutaneous absorption
Ireland	OEL (8 hours ref) (mg/m ³)	260 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (mg/m ³)	780 mg/m ³ (calculated)
Ireland	OEL (15 min ref) (ppm)	600 ppm (calculated)
Ireland	OEL chemical category (IE)	Potential for cutaneous absorption
Lithuania	IPRV (mg/m ³)	260 mg/m ³
Lithuania	IPRV (ppm)	200 ppm
Lithuania	OEL chemical category (LT)	Skin notation
Luxembourg	OEL TWA (mg/m ³)	260 mg/m ³
Luxembourg	OEL TWA (ppm)	200 ppm
Luxembourg	OEL chemical category (LU)	Possibility of significant uptake through the skin
Malta	OEL TWA (mg/m ³)	260 mg/m ³
Malta	OEL TWA (ppm)	200 ppm
Malta	OEL chemical category (MT)	Possibility of significant uptake through the skin
Norway	Grenseverdier (AN) (mg/m ³)	130 mg/m ³
Norway	Grenseverdier (AN) (ppm)	100 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	162,5 mg/m ³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	125 ppm (value calculated)
Norway	OEL chemical category (NO)	Skin notation
Poland	NDS (mg/m ³)	100 mg/m ³
Poland	NDSch (mg/m ³)	300 mg/m ³
Romania	OEL TWA (mg/m ³)	260 mg/m ³
Romania	OEL TWA (ppm)	200 ppm
Romania	OEL chemical category (RO)	Skin notation
Romania	Romania - BLV	6 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Slovakia	NPHV (priemerná) (mg/m ³)	260 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Slovakia	OEL chemical category (SK)	Potential for cutaneous absorption

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Methanol (67-56-1)		
Slovakia	Slovakia - BLV	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of exposure or work shift 30 mg/l Parameter: Methanol - Medium: urine - Sampling time: after all work shifts (for long-term exposure)
Slovenia	OEL TWA (mg/m ³)	260 mg/m ³
Slovenia	OEL TWA (ppm)	200 ppm
Slovenia	OEL STEL (mg/m ³)	1040 mg/m ³
Slovenia	OEL STEL (ppm)	800 ppm
Slovenia	OEL chemical category (SI)	Potential for cutaneous absorption
Sweden	nivågränsvärde (NVG) (mg/m ³)	250 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	200 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	350 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Sweden	OEL chemical category (SE)	Skin notation
Portugal	OEL TWA (mg/m ³)	260 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	200 ppm (indicative limit value)
Portugal	OEL STEL (ppm)	250 ppm
Portugal	OEL chemical category (PT)	skin - potential for cutaneous exposure indicative limit value

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapours below permissible exposure limit. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released. Gas detectors should be used when flammable gases or vapours may be released. Ensure all national/local regulations are observed.

Personal protective equipment

: Full protective flameproof clothing. Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection. Face shield.



Materials for protective clothing

: Wear fire/flame resistant/retardant clothing. Chemically resistant materials and fabrics.

Hand protection

: Wear protective gloves.

Eye and Face Protection

: Chemical safety goggles.

Skin and body protection

: Wear fireproof clothing. Wear suitable protective clothing.

Respiratory protection

: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Consumer exposure controls

: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colourless
Odour	: Faintly sweet pungent odor like ethyl alcohol
Odour threshold	: No data available
pH	: 7,2

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Evaporation rate	: No data available
Melting point	: -98 °C (-144,4 °F)
Freezing point	: -98 °C (-144,4 °F)
Boiling point	: 64 °C (147,2 °F) at atmospheric pressure
Flash point	: 11 °C (51,8 °F)
Critical temperature	: 240 °C (464 °F)
Auto-ignition temperature	: 464 °C (867,2 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: ≈ 128,24 mbar at 20 °C (68 °F)
Relative vapour density at 20 °C	: 1,11 at 15.6 °C (60 °F)
Relative density	: 0,792 at 20 °C (68 °F) (Water = 1)
Density	: 6,63 lb/gal (0.7945 kg per liter) at 15.6 °C (60 °F)
Solubility	: Water: 100%
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available
Explosive properties	: Lower explosive limits: 1% Upper explosive limits: 7%.
Oxidising properties	: No data available
Explosive limits	: No data available
Critical Pressure	: 1,142 psia (77.77 bar)
Molecular Weight	: 32.04
% Volatile by Volume	: 100%
9.2. Other information	
VOC content	: 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with strong oxidisers. Increased risk of fire or explosion.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7). Extremely flammable liquid and vapour. May form flammable or explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Ignition sources. Incompatible materials. Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible materials

Strong oxidizers such as barium, perchlorate, bromine, and chlorine. Beryllium hydride. Metals such as aluminum, magnesium, and potassium. Chloroform and sodium methoxide. Diethyl zinc. Acetyl bromide. Sodium hypochlorite.

10.6. Hazardous decomposition products

None expected under normal conditions of use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

Methanol (67-56-1)	
LD50 oral	1400 mg/kg
LD50 dermal rabbit	15840 mg/kg
LC50 inhalation rat (ppm)	22500 ppm (Exposure time: 8 h)
ATE CLP (oral)	100,00 mg/kg bodyweight
ATE CLP (dermal)	300,00 mg/kg bodyweight
ATE CLP (gases)	700,00 ppmv/4h
ATE CLP (vapours)	3,00 mg/l/4h
ATE CLP (dust,mist)	0,50 mg/l/4h

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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7,2
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7,2
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Causes damage to organs (visual organs, central nervous system).
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Symptoms/Injuries After Inhalation	: Toxic if inhaled. Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. Symptoms may include headache, drowsiness, dizziness, nausea, vomiting, visual disturbance, and optic nerve damage.
Symptoms/Injuries After Skin Contact	: This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Symptoms may include redness, dry skin, dermatitis, and defatting of the skin.
Symptoms/Injuries After Eye Contact	: May cause eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.
Symptoms/Injuries After Ingestion	: Toxic if swallowed. Symptoms may include headache, drowsiness, dizziness, nausea, visual disturbance, optic nerve damage (blindness), abdominal pain, shortness of breath, vomiting, convulsions, and unconsciousness. This material is toxic in small amounts orally, and can cause adverse health effects or death.
Chronic Symptoms	: Causes damage to organs. Methanol, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified.
Ecology - water	: Readily biodegrades. Evaporates to moderate extent. Does not bioaccumulate.

Methanol (67-56-1)	
LC50 fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	1340 mg/l
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

12.2. Persistence and degradability

Methanol (67-56-1)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Methanol (67-56-1)	
Bioaccumulative potential	Not established.

Methanol (67-56-1)	
BCF fish 1	< 10

Methanol

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Methanol (67-56-1)

Log Pow -0,77

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not empty into drains; dispose of this material and its container in a safe way.
Product/Packaging disposal : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1230	1230	1230	1230	1230
14.2. UN proper shipping name				
METHANOL	METHANOL	Methanol	METHANOL	METHANOL
14.3. Transport hazard class(es)				
3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

14.6. Special precautions for user

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008

Methanol - Methanol

Methanol

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Methanol - Methanol
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Methanol - Methanol
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Methanol - Methanol
69. Methanol	Methanol

Methanol is not on the REACH Candidate List

Methanol is not on the REACH Annex XIV List

Methanol (67-56-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

VOC content : 100 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Date of Preparation or Latest Revision : 06/02/2020

Data sources : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

Other information : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full Text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — Single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H371	May cause damage to organs.

Indication of Changes

Methanol

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Section	Change	Date Changed	Version
10.6	Modified	06/02/2020	3.2
15.1.1	Modified	06/02/2020	3.2

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists	NDS - Najwyższe Dopuszczalne Stezenie
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways	NDSCh - Najwyższe Dopuszczalne Stezenie Chwilowe
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road	NDSP - Najwyższe Dopuszczalne Stezenie Pulapowe
ATE - Acute Toxicity Estimate	NOAEL - No-Observed Adverse Effect Level
BCF - Bioconcentration Factor	NOEC - No-Observed Effect Concentration
BEI - Biological Exposure Indices (BEI)	NRD - Nevirsytinas Ribinis Dydis
BOD – Biochemical Oxygen Demand	NTP – National Toxicology Program
CAS No. - Chemical Abstracts Service Number	OEL - Occupational Exposure Limits
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008	PBT - Persistent, Bioaccumulative and Toxic
COD – Chemical Oxygen Demand	PEL - Permissible Exposure Limit
EC – European Community	pH – Potential Hydrogen
EC50 - Median Effective Concentration	REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
EEC – European Economic Community	RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
EINECS – European Inventory of Existing Commercial Chemical Substances	SADT - Self Accelerating Decomposition Temperature
Ems-No. (Fire) - IMDG Emergency Schedule Fire	SDS - Safety Data Sheet
Ems-No. (Spillage) - IMDG Emergency Schedule Spillage	STEL - Short Term Exposure Limit
EU – European Union	STOT - Specific Target Organ Toxicity
Erc50 - EC50 in Terms of Reduction Growth Rate	TA-Luft - Technische Anleitung zur Reinhaltung der Luft
GHS – Globally Harmonized System of Classification and Labeling of Chemicals	TEL TRK – Technical Guidance Concentrations
IARC - International Agency for Research on Cancer	ThOD – Theoretical Oxygen Demand
IATA - International Air Transport Association	TLM - Median Tolerance Limit
IBC Code - International Bulk Chemical Code	TLV - Threshold Limit Value
IMDG - International Maritime Dangerous Goods	TPRD - Trumpalaikio Poveikio Ribinis Dydis
IPRV - Ilgalaikio Poveikio Ribinis Dydis	TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
IOELV – Indicative Occupational Exposure Limit Value	TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
LC50 - Median Lethal Concentration	TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
LD50 - Median Lethal Dose	TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
LOAEL - Lowest Observed Adverse Effect Level	TSCA - Toxic Substances Control Act
LOEC - Lowest-Observed-Effect Concentration	TWA - Time Weighted Average
Log Koc - Soil Organic Carbon-water Partitioning Coefficient	VOC – Volatile Organic Compounds
Log Kow - Octanol/water Partition Coefficient	VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water	VLA-ED - Valor Límite Ambiental Exposición Diaria
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration	VLE – Valeur Limite D'exposition
MARPOL - International Convention for the Prevention of Pollution	VME – Valeur Limite De Moyenne Exposition
EU GHS SDS	vPvB - Very Persistent and Very Bioaccumulative
	WEL – Workplace Exposure Limit
	WGK - Wassergefährdungsklasse

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.