Methanol

Safety Data Sheet

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

Revision Date: 11/05/2018 Date of Issue: 16/02/2015 Version: 3.1

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_3OH

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

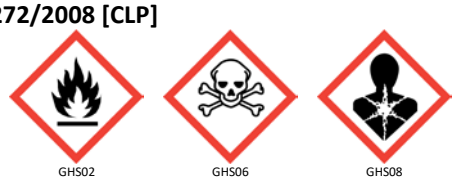
Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02 GHS06 GHS08

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 organ, 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/bond container and receiving equipment.

P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
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/shower.
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 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : Methanol, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death. Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Methanol
CAS No : 67-56-1

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Methyl alcohol	(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:vapour), H331 STOT SE 1, H370

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Methyl alcohol	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	(3 =<C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370

Full text of H-statements: see section 16

3.2. Mixture

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 if 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. Keep at rest and in a position comfortable for breathing. Seek immediate medical attention. Immediately call a poison center or doctor/physician.

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/injuries : Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs (visual organs, central nervous system).

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 : This material is toxic in small amounts orally, and can cause adverse health effects or death. Symptoms may include headache, drowsiness, dizziness, nausea, visual disturbance, optic nerve damage (blindness), abdominal pain, shortness of breath, vomiting, convulsions, and unconsciousness.

Chronic symptoms : Causes damage to organs (visual organ, central nervous system). 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).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO_2), water spray, fog.

Unsuitable extinguishing media : Water may be ineffective because it may not cool the material below its flash point. Methanol-water mixtures containing as little as 21% methanol by volume (25% by weight) are also flammable liquids. Water should be used to keep fire-exposed containers cool. Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/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.

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 decompostion. Use water spray or fog for cooling exposed containers. Closed containers exposed to heat may explode. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. 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.

Other information : Refer to Section 9 for flammability properties.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : 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. Do not breathe vapour, mist, or spray. Do not get in eyes, on skin, or on clothing.

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protective equipment (PPE).

Emergency procedures : Evacuate unnecessary personnel.

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.

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 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, Exposure Controls and Personal Protection. For further information refer to section 13.

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 : Use only non-sparking tools. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin, eyes and clothing. Avoid breathing vapour, mist, or spray. Use appropriate personal protective equipment (PPE).

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

Storage conditions : Store in a cool, dry, well-ventilated place. Keep containers tightly closed. Do not store near heat, flame, or other potential ignition sources. Do not store with oxidizers. 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 container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible products : 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

Methyl alcohol (67-56-1)		
EU	IOELV TWA (mg/m³)	260 mg/m³
EU	IOELV TWA (ppm)	200 ppm
Austria	MAK (mg/m³)	260 mg/m³
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m³)	1040 mg/m³
Austria	MAK Short time value (ppm)	800 ppm
Austria	OEL chemical category (AT)	Skin notation
Belgium	Limit value (mg/m³)	266 mg/m³
Belgium	Limit value (ppm)	200 ppm
Belgium	Short time value (mg/m³)	333 mg/m³
Belgium	Short time value (ppm)	250 ppm
Belgium	OEL chemical category (BE)	Skin, Skin notation
Bulgaria	OEL TWA (mg/m³)	260,0 mg/m³
Bulgaria	OEL TWA (ppm)	200 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	260 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Croatia	OEL chemical category (HR)	Skin notation
Croatia	Croatia - BEI	7,0 mg/g Kreatinin Parameter: Methanol - Medium: urine - Sampling time: at the end of the shift (for all results that are expressed as Creatinine, Creatinine concentration less than 0.5 g/L and greater than 3.0 g/L should not be considered)
Cyprus	OEL TWA (mg/m³)	260 mg/m³
Cyprus	OEL TWA (ppm)	200 ppm
Cyprus	OEL chemical category (CY)	Skin-potential for cutaneous absorption
France	VLE (mg/m³)	1300 mg/m³
France	VLE (ppm)	1000 ppm
France	VME (mg/m³)	260 mg/m³ (restrictive limit)
France	VME (ppm)	200 ppm (restrictive limit)
France	OEL chemical category (FR)	Risk of cutaneous absorption
France	France - BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (Background noise on non-exposed subjects, Non-specific (observed after the exposure to other substances))
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	270 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 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)

Methyl alcohol (67-56-1)		
Germany	TRGS 903 (BGW)	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift 30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of several shifts (for long-term exposures)
Germany	TRGS 900 chemical category	Skin notation
Gibraltar	OEL TWA (mg/m³)	260 mg/m³
Gibraltar	OEL TWA (ppm)	200 ppm
Gibraltar	OEL chemical category (GI)	Skin notation
Greece	OEL TWA (mg/m³)	260 mg/m³
Greece	OEL TWA (ppm)	200 ppm
Greece	OEL STEL (mg/m³)	325 mg/m³
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/m³)	260 mg/m³
Italy	OEL TWA (ppm)	200 ppm
Italy	OEL chemical category (IT)	skin - potential for cutaneous absorption
Latvia	OEL TWA (mg/m³)	260 mg/m³
Latvia	OEL TWA (ppm)	200 ppm
Latvia	OEL chemical category (LV)	skin - potential for cutaneous exposure
Spain	VLA-ED (mg/m³)	266 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	200 ppm (indicative limit value)
Spain	OEL chemical category (ES)	skin - potential for cutaneous exposure
Spain	Spain - BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Switzerland	VLE (mg/m³)	1040 mg/m³
Switzerland	VLE (ppm)	800 ppm
Switzerland	VME (mg/m³)	260 mg/m³
Switzerland	VME (ppm)	200 ppm
Switzerland	OEL chemical category (CH)	Skin notation
Switzerland	Switzerland - BEI	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/m³)	133 mg/m³
Netherlands	Grenswaarde TGG 8H (ppm)	100 ppm
United Kingdom	WEL TWA (mg/m³)	266 mg/m³
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (mg/m³)	333 mg/m³
United Kingdom	WEL STEL (ppm)	250 ppm
United Kingdom	WEL chemical category	Potential for cutaneous absorption
Czech Republic	Expoziční limity (PEL) (mg/m³)	250 mg/m³
Czech Republic	OEL chemical category (CZ)	Potential for cutaneous absorption
Czech Republic	Czech Republic - BEI	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/m³)	260 mg/m³

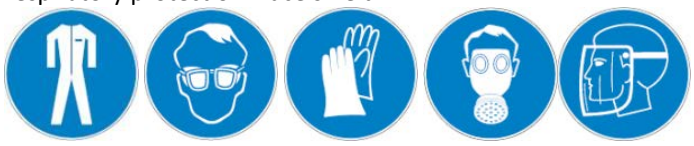
Methyl alcohol (67-56-1)		
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Estonia	OEL TWA (mg/m³)	260 mg/m³
Estonia	OEL TWA (ppm)	200 ppm
Estonia	OEL STEL (mg/m³)	350 mg/m³
Estonia	OEL STEL (ppm)	250 ppm
Estonia	OEL chemical category (ET)	Skin notation
Finland	HTP-arvo (8h) (mg/m³)	270 mg/m³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	330 mg/m³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
Finland	OEL chemical category (FI)	Potential for cutaneous absorption
Hungary	AK-érték	260 mg/m³
Hungary	OEL chemical category (HU)	Potential for cutaneous absorption
Ireland	OEL (8 hours ref) (mg/m³)	260 mg/m³
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (mg/m3)	780 mg/m³ (calculated)
Ireland	OEL (15 min ref) (ppm)	600 ppm (calculated)
Ireland	OEL chemical category (IE)	Potential for cutaneous absorption
Lithuania	IPRV (mg/m³)	260 mg/m³
Lithuania	IPRV (ppm)	200 ppm
Lithuania	OEL chemical category (LT)	Skin notation
Luxembourg	OEL TWA (mg/m³)	260 mg/m³
Luxembourg	OEL TWA (ppm)	200 ppm
Luxembourg	OEL chemical category (LU)	Possibility of significant uptake through the skin
Malta	OEL TWA (mg/m³)	260 mg/m³
Malta	OEL TWA (ppm)	200 ppm
Malta	OEL chemical category (MT)	Possibility of significant uptake through the skin
Norway	Grenseverdier (AN) (mg/m³)	130 mg/m³
Norway	Grenseverdier (AN) (ppm)	100 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	162,5 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	125 ppm (value calculated)
Norway	OEL chemical category (NO)	Skin notation
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSCh (mg/m³)	300 mg/m³
Romania	OEL TWA (mg/m³)	260 mg/m³
Romania	OEL TWA (ppm)	200 ppm
Romania	OEL chemical category (RO)	Skin notation
Romania	Romania - BEI	6 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Slovakia	NPHV (priemerná) (mg/m³)	260 mg/m³
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Slovakia	OEL chemical category (SK)	Potential for cutaneous absorption
Slovakia	Slovakia - BEI	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/m³)	260 mg/m³

Methyl alcohol (67-56-1)		
Slovenia	OEL TWA (ppm)	200 ppm
Slovenia	OEL chemical category (SL)	Potential for cutaneous absorption
Sweden	nivågränsvärde (NVG) (mg/m³)	250 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	200 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	350 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Sweden	OEL chemical category (SE)	Skin notation
Portugal	OEL TWA (mg/m³)	260 mg/m³ (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 : Ensure all national/local regulations are observed. 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. Gas detectors should be used when flammable gases/vapours may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.

Personal protective equipment : Equipment should prevent repeated or prolonged skin contact with the product. This may include rubber boots, resistant gloves, and other impervious and resistant clothing. Compatible materials may include butyl rubber, natural rubber, neoprene, nitrile rubber, viton and others. Review the manufacturer's compatibility data. Use chemical (indirectly vented) goggles when there is a potential for contact with product, including vapor. A full-face shield may be worn over goggles for additional protection, but not as substitute for goggles. Insufficient ventilation: wear respiratory protection. Face shield.



Materials for protective clothing : Wear fire/flame resistant/retardant clothing.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Chemical safety goggles.

Skin and body protection : Wear fireproof 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

Colour : Colourless

Odour : Faintly sweet pungent odour like ethyl alcohol

Odour threshold : No data available

pH : 7,2

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)	:	No data available
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

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).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Ignition sources. Direct sunlight. Extremely high or low temperatures. Open flame. Incompatible materials.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Carbon oxides (CO, CO_2). Acrid smoke and irritating fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: vapour: Toxic if inhaled.

Methanol (67-56-1)	
ATE CLP (oral)	100,00 mg/kg bodyweight
ATE CLP (dermal)	300,00 mg/kg bodyweight
ATE CLP (vapours)	3,00 mg/l/4h

Methyl alcohol (67-56-1)	
LD50 oral	1400 mg/kg
LC50 inhalation rat (ppm)	22500 ppm (Exposure time: 8 h)
LC50 inhalation rat (Vapours - mg/l/4h)	3 mg/l/4h
ATE CLP (oral)	100,00 mg/kg bodyweight
ATE CLP (dermal)	300,00 mg/kg bodyweight

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

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)
Specific target organ toxicity (single exposure)	:	Causes damage to organs.
Specific target organ toxicity (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. Symptoms may include headache, drowsiness, dizziness, nausea, vomiting, visual disturbance, and optic nerve damage.
Symptoms/Injuries After Skin Contact	:	Toxic in contact with skin. 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.
Chronic Symptoms	:	Causes damage to organs (Optic nerve (nervus opticus) and the central nervous system). 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 - water : Readily biodegrades. Evaporates to moderate extent. Does not bioaccumulate.

Methyl alcohol (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.

Methyl alcohol (67-56-1)	
BCF fish 1	< 10
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.

Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional information : Handle empty containers with care because residual vapours are flammable.

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 - Methyl alcohol
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 - Methyl alcohol

Methanol is not on the REACH Candidate List
Methanol is not on the REACH Annex XIV List

Methyl alcohol (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

Revision date: : 11/05/2018

Data sources : 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: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
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

Indication of Changes

Section	Change	Date Changed	Version
1	Data modified	11/05/2018	3.1
2	Language modified	02/04/2018	3.0
4	Language modified	02/04/2018	3.0
5	Language modified	02/04/2018	3.0
6	Language modified	02/04/2018	3.0
7	Language modified	02/04/2018	3.0
8	Language modified	02/04/2018	3.0
11	Language modified	02/04/2018	3.0
16	Language modified	02/04/2018	3.0
2	Classification modified	28/11/2016	2.1
3	Classification modified	28/11/2016	2.1
8	Classification modified	28/11/2016	2.1

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists
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
ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
BEI - Biological Exposure Indices (BEI)
BOD – Biochemical Oxygen Demand
CAS No. - Chemical Abstracts Service Number
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008
COD – Chemical Oxygen Demand
EC – European Community
EC50 - Median Effective Concentration
EEC – European Economic Community
EINECS – European Inventory of Existing Commercial Chemical Substances
EmS-No. (Fire) - IMDG Emergency Schedule Fire
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage
EU – European Union
ErC50 - EC50 in Terms of Reduction Growth Rate
GHS – Globally Harmonized System of Classification and Labeling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC Code - International Bulk Chemical Code
IMDG - International Maritime Dangerous Goods
IPRV - Ilgalaikio Poveikio Ribinis Dydis
IOELV – Indicative Occupational Exposure Limit Value
LC50 - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAEL - Lowest Observed Adverse Effect Level
MARPOL - International Convention for the Prevention of Pollution
NDS - Najwyzsze Dopuszczalne Stezenie
NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NRD - Nevirsytinas Ribinis Dydis
NTP – National Toxicology Program
OEL - Occupational Exposure Limits
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
pH – Potential Hydrogen
REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
SADT - Self Accelerating Decomposition Temperature
SDS - Safety Data Sheet
STEL - Short Term Exposure Limit
TA-Luft - Technische Anleitung zur Reinhaltung der Luft
TEL TRK – Technical Guidance Concentrations
ThOD – Theoretical Oxygen Demand
TLM - Median Tolerance Limit
TLV - Threshold Limit Value
TPRD - Trumpalaikio Poveikio Ribinis Dydis
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
TSCA - Toxic Substances Control Act

LOEC - Lowest-Observed-Effect Concentration
Log Koc - Soil Organic Carbon-water Partitioning Coefficient
Log Kow - Octanol/water Partition Coefficient
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
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration
TWA - Time Weighted Average
VOC – Volatile Organic Compounds
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
VLA-ED - Valor Límite Ambiental Exposición Diaria
VLE – Valeur Limite D'exposition
VME – Valeur Limite De Moyenne Exposition
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK - Wassergefährdungsklasse

EU GHS SDS

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.