

## Section 1 - Product and company identification

### 1.1 Product Identifier

Product Name: Methanol

Product code(s): Methanol

Synonyms: Alcohol, Methyl hydrate, Methyl alcohol; Wood alcohol; Wood spirit; Carbinol; Monohydroxymethane; Methyl hydroxide.

REACH Registration Number: Not applicable

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

General use: Solvent, fuel, feedstock, chemical raw material, chemical intermediate

Uses advised against: None

### 1.3 Details of the supplier of the safety data sheet

The Chemical Supply

9595 Six Pine Dr. Ste 8210

The Woodlands, TX 77380

1.4 Emergency telephone number: Chemtrec: +1 (800) 424-9300

## 2. Hazard Identification

### 2.1 Classification of substance or mixture

Classification in accordance with 29 CFR 1910 (OSHA HAZCOM 2012)

GHS Classification

Flammable liquid – Category 2 [H225]

Acute toxicity, oral – Category 3 [H301]

Acute toxicity, dermal – Category 2

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2B

Specific target organ systemic toxicity (single exposure) Category 1 (STOT SE 1) [H370]

### 2.2 Label elements

Hazard Symbol(s):



Signal Word:

Danger

Hazard Statement(s):

- H225 – Highly flammable liquid and vapor.
- H301 – Toxic if swallowed.
- H311 – Toxic in contact with skin.
- H319 – Causes serious eye irritation.
- H331 – Toxic if inhaled.
- H336 – May cause drowsiness or dizziness.
- H360 – May damage fertility or the unborn child.
- H370 – Causes damage to organs: eyes, skin, respiratory system, central nervous system, and gastrointestinal tract.

Precautionary statement(s):

Prevention:

- P201 – Obtain special instructions before use.
- P202 – Do not handle until all safety precautions have been read and understood.
- P210 – Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
- P233 – Keep container tightly closed.
- P240 – Ground/bond container and receiving equipment.
- P241 – Use explosion-proof electrical, ventilating, lighting, equipment.
- P242 – Use only non-sparking tools.
- P243 – Take precautionary measures against static discharge.
- P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 – Wash face, hands and any exposed skin 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, eye protection, face protection.

Response:

- P370+P378 - In case of fire: Use water spray, foam, dry chemical, carbon dioxide to extinguish.
- P307+P311 – IF EXPOSED: Call a POISON CENTER or doctor/physician.
- P301+P310 – IF SWALLOWED: Immediately POISON CENTER or doctor/physician.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. If skin irritation occurs, get medical advice/attention.
- P363 – Wash contaminated clothing before reuse.
- P302+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- P330 – Rinse mouth with water.
- P363 – Wash contaminated clothing before reuse.
- P304+P340 – IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

P321 – Specific treatment: Refer to product label and Section 4. Contact a POISON CENTER or doctor/physician.

Storage:

P403+P233+P235 – Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 – Store locked up.

Disposal:

P501 - Dispose of contents/container to an approved waste management site in accordance with national/local regulations.

### 3. Composition/information on ingredients

#### 3.1 Substance(s)

% by Weight	Ingredient	CAS No.	EC No.	Index No.	EC Classification
>99	Methanol	67-56-1	200-659-6	603-001-00-X	F, R11, Xn, R68, R20/21/22

#### 3.2 Mixture(s)

Not applicable

### 4. First aid measures

#### 4.1 Description of first aid measures

First aid measures general Information:

In all cases of doubt, or when symptoms persist, seek medical attention - call a Poison Center or doctor/physician

Never give anything by mouth to an unconscious person.

Methanol is toxic and flammable – take proper precautions to ensure your own safety before attempting rescue (e.g. wear protective equipment and remove ignition sources).

First aid measures – inhalation:

If product vapor or mists causes respiratory irritation or distress, move the exposed person to fresh air immediately.

If breathing is difficult or irregular, administer oxygen.

If respiratory arrest occurs, start artificial respiration by trained personnel.

Loosen tight clothing as a collar, tie, belt or waistband.

If symptoms persist, seek medical attention immediately.

First aid measures – eye contact:

Immediately flush eyes with large amounts of water for 15 minutes.

Remove contact lenses, if present and easy to do, after the first 2 minutes and

continue rinsing, lifting upper and lower eyelids occasionally.  
Obtain immediate medical attention, preferably from an ophthalmologist.

First aid measures – skin contact:

Remove contaminated clothing.  
Flush skin with large amounts of water.  
Wash affected area with soap and water.  
Seek medical attention if irritation persists.  
Wash contaminated clothing and shoes thoroughly before reuse.

First aid measures – ingestion:

Ingesting of methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after ingestion.  
Rinse mouth with water if victim is conscious.  
Do not induce vomiting unless directed to do so by medical personnel.  
If conscious, alert and able to swallow, give the victim 2-4 cups of water or milk to drink.  
Get immediate medical attention.

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

Health symptoms/effects – eyes:

Causes eye irritation characterized by redness, burning sensation, tearing, swelling and inflammation.  
May cause corneal injury and painful sensitization to light.  
Continued exposure may cause lesions.  
Vapors and fumes can cause eye irritation.

Health symptoms/effects – skin:

May cause skin irritation.  
Methanol is a defatting agent.  
Repeated or prolonged exposure may cause drying and cracking of skin.  
Absorption through the skin can be toxic.  
Symptoms may be similar to inhalation exposure.

Health symptoms/effects – inhalation:

Irritating to mucous membranes and to the respiratory system.  
Causes central nervous system depression and particularly affects the optic nerve.  
Symptoms of over exposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, narcosis, coma and death.

Health symptoms/effects – ingestion:

Ingestion of 100-125 ml (~3 to 4 oz.) can be fatal or cause serious, irreversible injury such as blindness.  
Symptoms are similar to those for inhalation, but severity and speed of appearance may be greater.  
May cause central nervous system depression, characterized by excitement,

followed by headache, dizziness, drowsiness and nausea.

Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Health symptoms/effects – chronic:

Prolonged or repeated contact with skin may defat the tissue causing dermatitis or aggravate existing skin problems.

Pre-existing skin, eye and respiratory disorders may be aggravated by exposure to methanol.

Impaired kidney, liver and central nervous system functions from pre-existing disorders may be aggravated by exposure to methanol.

Chronic exposures may cause reproductive disorders and teratogenic effects.

Refer to Section 11.2.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor/Physician and Hospital Personnel:

Effects may be delayed.

Ethanol may inhibit methanol metabolism.

## 5. Fire-fighting measures

5.1 Extinguishable media

Suitable methods of extinction:

Water fog, water spray, alcohol resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>)

Unsuitable methods of extinction:

Methanol will float on water. Using water jets or solid water streams are not to be used as they may scatter and spread the fire.

5.2 Special hazards arising from the substance or mixture:

Fire Hazards:

Liquid and vapors are flammable.

Vapors are easily ignite by heat, sparks or flame.

Methanol burns with a clean, clear flame that is almost invisible in daylight.

Vapors are heavier than air and may spread along floors, and travel to a source of ignition and flash back.

Vapors can collect in low or confined areas.

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Symptoms of over exposure to these gases may not be apparent.

Seek medical advice.

Products of combustion:

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), other oxides of carbon, hydrogen, formic acid, formaldehyde, other toxic fumes and gases, combustion gases of organic materials (Combustion gases of organic

materials must in principle be graded as inhalation poisons) and flammable gases.

Explosion hazards:

Vapors form explosive mixtures with air.  
Containers may explode if exposed to fire.

Reactivity:

Stable under normal conditions.

5.3 Advice for firefighters

Firefighting instructions:

Respondents should stay upwind of the fire.  
Flames may be invisible during the day.  
Use of infrared and/or heat detection devices is recommended.  
Water may be used to cool containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat.  
If possible, firefighters should control runoff water to prevent environmental contamination.

Protection during firefighting:

Use full protective equipment including self-contained breathing apparatus.

## 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective clothing (designated in Section 8).  
Keep away from heat and sources of ignition.  
Keep unnecessary and unprotected personnel from entering the hazard area.  
Provide adequate ventilation.  
Avoid contact with the skin and the eyes.  
Avoid breathing vapors or mists.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.  
Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.  
Prevent further leakage or spillage.

6.3 Methods and materials for containment and cleaning up

Approach spill from upwind direction.; keep out of low areas.  
Cover drains and contain spill.  
Recover liquid where possible, or dilute with water or use alcohol resistant foam to reduce the fire hazard.  
Collect the liquid in an approved container, or cover with a large quantity of inert absorbent material. Do not use combustible material such as sawdust.

Collect product using non-sparking tools and place into approved container for proper disposal.  
Observe material restrictions (Section 7.2 and 10.5).  
Clean contaminated area with soap and water.  
US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

#### 6.4 Reference to other sections

For indications about waste treatment, see Section 13.

### **7. Handling and storage**

#### 7.1 Precaution for safe handling

##### Advice on safe handling

Avoid contact with skin and eyes.  
Avoid inhalation of vapor or mist.  
Provide sufficient air exchange and/or exhaust in work rooms.  
No smoking.  
Wear all appropriate protective equipment specified in Section 8.  
Wash hands thoroughly after handling.  
Remove contaminated clothing and wash before reuse.  
Keep containers closed when not in use.

##### Advice on protection against fire and explosion:

Keep away from sources of ignition – heat, sparks and flame.  
Take necessary action to avoid static electricity discharge. Ground and bond containers when transferring material.  
Use non-sparking type tools and equipment, including explosion ventilation  
In case of fire, emergency cooling with water spray should be available.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Technical measures:

Follow proper grounding procedures to avoid static electricity discharge.  
Ground and bond container and receiving equipment.  
Use explosion proof electrical equipment.  
Tanks must be grounded, vented and have vapor emission controls including floating roofs, inert gas blanketing to prevent the formation of explosive mixtures and pressure vacuum relief valves to control tank pressures.  
Tanks should be of welded construction and should have dikes around them.  
Empty containers retain product residue (liquid and/or vapor) and is dangerous.  
DO NOT pressurized, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition.  
Have appropriate fire extinguishers and spill cleanup equipment in or near the storage area.

Keep only in the original container in a cool, well ventilated place away from ignition sources, oxidizing agents, acids and bases.

Keep in a fireproof place.

Keep container tightly closed.

Do not store in confined spaces.

#### Storage area:

Store at room temperature.

Keep out of direct sunlight.

Store in a dry area.

Keep container in a well ventilated place, preferably in an outside or detached storage area.

Keep locked up.

Have dykes around all storage tanks.

Unauthorized persons are not admitted into the areas.

#### Packaging materials:

Use suitable materials: steel stainless steel, iron, glass.

Avoid using copper, copper alloys, lead, aluminum, zinc, polyethylene and PVC.

#### 7.3 Specific end uses(s)

Solvent, fuel, feedstock.

### 8. Exposure controls / personal protection

#### 8.1 Control parameters

ACGIH	TWA - 200 ppm STEL - 250 ppm Skin – potential significant contributions to overall exposure by the cutaneous route
NIOSH	TWA - 200 ppm; 260 mg/m <sup>3</sup> STEL - 250 ppm; 325 mg/m <sup>3</sup> Potential for dermal absorption IDLH – 6000 ppm
OSHA (US)	TWA - 200 ppm; 260 mg/m <sup>3</sup>
Alberta (Canada)	TWA - 200 ppm; 262 mg/m <sup>3</sup> STEL - 250 ppm; 328 mg/m <sup>3</sup> Substance may be readily absorbed through intact skin
British Columbia (Canada)	TWA - 200 ppm STEL - 250 ppm Skin – notation
Manitoba (Canada)	TWA - 200 ppm Skin – potential for cutaneous absorption Skin – potential significant contribution to overall exposure by the



	cutaneous route
New Brunswick (Canada)	TWA - 200 ppm; 262 mg/m <sup>3</sup> STEL - 250 ppm; 328 mg/m <sup>3</sup> Skin – potential for cutaneous absorption
Northwest Territories (Canada)	TWA - 200 ppm STEL - 250 ppm Skin – notation
Nova Scotia (Canada)	TWA - 200 ppm STEL - 250 ppm Skin – potential significant contribution to overall exposure by the cutaneous route
Nunavut	TWA - 200 ppm STEL - 250 ppm Skin – notation
Ontario (Canada)	TWA - 200 ppm; 262 mg/m <sup>3</sup> STEL - 250 ppm; 328 mg/m <sup>3</sup> Skin – potential for cutaneous absorption
Prince Edward Island (Canada)	TWA - 200 ppm STEL - 250 ppm
Quebec (Canada)	TWAEV - 200 ppm; 262 mg/m <sup>3</sup> STEV - 250 ppm; 328 mg/m <sup>3</sup> Skin – designation
Saskatchewan (Canada)	TWA - 200 ppm STEL - 250 ppm Skin – potentially harmful after absorption through skin or mucous membranes
Yukon (Canada)	TWA - 200 ppm; 260 mg/m <sup>3</sup> STEL - 250 ppm; 310 mg/m <sup>3</sup> Skin – notation
Mexico	LMPE-PPT – 200 ppm; 260 mg/m <sup>3</sup> STEL – 250 ppm; 310 mg/m <sup>3</sup>

## 8.2 Exposure controls

### Engineering controls:

Carry out operations in the open with local exhaust/ventilation and with respiratory protection.  
Both local exhaust and good general room ventilation must be provided to control exposure as well as to prevent formation of flammable mixtures.  
Emergency safety showers and eye wash stations should be readily available in the immediate vicinity of any potential exposures.  
Use only explosion-proof equipment (for example fans, switches, grounded ducts).

### Individual protection measures:

Level of risk of exposure to methanol will dictate the appropriate level of personal protective equipment (PPE) needed.

Wear protective clothing and chemical resistant footwear to prevent repeated or prolonged contact with methanol.

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled.

Change contaminated clothing and wash before reuse.

Avoid unnecessary exposure.

**Hand protection:**

Wear rubber (butyl or nitrile rubber) or neoprene gloves for protection against methanol.

Gloves should be impermeable.

Breakthrough time of selected gloves must be greater than the intended use period.

Wash hands thoroughly after use, before eating, drinking or using lavatory.

**Eye/face protection:**

Wear protective safety glasses or chemical goggles and a face shield, when there is a reasonable chance of eye contact.

Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

**Skin protection:**

Wear impervious clothing and gloves to prevent contact.

Other protective material may be used, depending on the situation. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

**Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Always use an approved respirator when vapor/mists are generated.

Where risk assessment shows air purifying respirators are appropriate, use a full-faced respirator with multi-purpose combination (US) or ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Environmental exposure controls:**

Do not empty into drains/sewers.

**Other information:**

Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Smoking, eating and drinking must be prohibited in areas of storage and use.

*Note: PPE must not be considered a long-term solution to exposure control.*

*PPE usage must be accompanied by employer programs to properly select, maintain, clean, fit and use. Consult a competent industrial hygiene resource*

*to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.*

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Molecular mass	32.04 g/mol
Color	Colorless
Odor	Alcohol odor
Odor threshold	4.2 – 5960 ppm
pH	Not applicable
Relative evaporation rate (butyl acetate = 1)	4.1
Melting point	-97.8°C (-144°F)
Freezing point	-97.6°C (-143.7°F)
Boiling point	64.7°C (148.5°F) at 760 mm Hg
Flash point	12°C (54°F) Closed cup (TCC method) 15.6°C (60.1°F) Open cup (TOC method)
Auto-ignition temperature	470°C (878°F)
Decomposition temperature	Not available
Flammability (solid, gas)	No data available
Vapor pressure	12.8 kPa at 20°C (68°F)
Relative vapor density at 20°C (68°F)	1.1
Relative density	0.791 – 0.793 at 20°C (68°F)
Relative density of saturated gas/air mixture	1.0
Specific gravity/density	0.792/792 kg/m <sup>3</sup> at 20°C (68°F)
Solubility	Miscible in water
Partition coefficient: n-octanol/water	-0.77 (log value)
Viscosity, kinematic	No data available
Viscosity, liquid	0.544 mPa s at 25°C (77°F)
Explosive properties	Vapors may form explosive mixture with air
Oxidizing properties	Not oxidizing
Lower explosive limit (LEL), in air	6.0 vol %
Upper explosive limit (UEL), in air	36.5 vol %
VOC content	100%

### 9.2 Other data

No data available

**10. Stability and reactivity**

## 10.1 Reactivity

Stable under normal conditions.

## 10.2 Chemical stability

Stable under normal ambient conditions of handling, use and transportation.

## 10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

Under fire conditions closed containers may rupture or explode.

Vapors may form explosive mixture in air.

Reacts with strong oxidizing agents and halogenated hydrocarbons.

Avoid excessive heat and sources of ignition.

Substance decomposes on burning and may produce irritating fumes.

## 10.4 Conditions to avoid

Direct sunlight.

High temperatures.

Avoid any sources of ignition.

Avoid contact with heat, sparks, open flame, and static discharge.

Avoid contact with incompatible materials and oxidizers.

Avoid impact.

Avoid confined areas.

## 10.5 Incompatible materials

Oxidizing agents, strong mineral or organic acids, strong bases, halogenated hydrocarbons.

May be corrosive to lead, aluminum, magnesium and platinum.

Methanol is not compatible with gasket and O-rings made of Buna-N and Nitrile rubbers.

## 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, other oxides of carbon, hydrogen, formic acid, formaldehyde, other toxic fumes and gases, flammable gases

**11. Toxicological information**

## 11.1 Information on toxicological effects

Information on likely routes of exposure: inhalation, skin, eyes, and ingestion.

Immediate effects:

Inhalation:

May cause irritation of respiratory tract.

Symptoms of exposure may include: Central nervous system depression with nausea, dizziness, headache, stupor, uncoordinated or strange behavior or unconsciousness. Metabolic acidosis and severe visual effects can occur following 8-24 hour latent period. Visual effects may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness. Coma and death, usually due to respiratory failure, may occur if medical treatment is not received.

#### Skin Contact:

May cause skin irritation.  
May be harmful if absorbed through skin.  
Symptoms of overexposure include: Drying, cracking or inflammation of skin. Central nervous system depression with headache, stupor, uncoordinated or strange behavior or unconsciousness.  
Prolonged and /or repeated skin contact with methanol-soaked material has produced toxic effects including vision effects and death.

#### Eye Contact:

May cause eye irritation.  
Symptoms of exposure may include: Eye irritation, burning sensation, pain, watering, and/or change of vision.  
Eye injury that may persist for several days.

#### Ingestion:

May be fatal if swallowed.  
A small amount of Methanol (10 – 30 ml (1 ounce)) can cause mental sluggishness, nausea and vomiting leading to severe illness, and may produce adverse effects on vision with possible blindness or death if treatment is not received.  
Metabolic acidosis and severe visual effects can occur following 8-24 hour latent period.  
Visual effects may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness.

#### Target organ effects:

Overexposure (prolonged or repeated exposure) may cause:  
Central nervous system depression  
Injury to the eyes  
Drying of the skin  
Local irritation at the site of exposure  
Specific organ toxicity – single exposure  
May cause drowsiness or dizziness  
Specific organ toxicity – repeated exposure  
Prolonged and repeated exposure to skin may cause defatting of skin and dermatitis.

Medical conditions which may be aggravated by exposure:

Significant exposure to this chemical may adversely affect people with acute or chronic disease of the:

Skin  
Eyes  
Central nervous system  
Digestive tract

Acute oral toxicity:

Toxic if swallowed.  
LD50, Mouse: 7300 mg/kg  
LD50, Rabbit: 14200 mg/kg  
LD50, Rat: 5628 mg/kg

Acute inhalation toxicity:

LC50, Rat: 64000 ppm

Skin irritation:

No data available

Eye irritation:

Causes eye irritation - rabbit

Sensitization:

Nonsensitizer – guinea pig – Maximization method.

Genotoxicity:

No data available.

Mutagenicity:

in vitro:

Ames Test: negative - with and without metabolic activation  
Method: OECD 471 Mouse lymphoma cell gene-mutation:  
positive - with and without metabolic activation  
Method: OECD 476 In vitro Sister Chromatid Exchange Assay in  
Chinese Hamster Ovary (CHO): negative - with and without  
metabolic activation  
Method: OECD 479 In vitro Mammalian Cell Transformation Test: negative –  
without metabolic activation  
EU-Method: B.21

in vivo:

Positive and negative results

Aspiration hazard:

No data available.

## Carcinogenic effects:

No evidence of carcinogenicity - Species rats - inhalation lifetime study  
No evidence of carcinogenicity - Species mice - inhalation lifetime study

## Reproductive toxicity:

Some indication of reproductive toxicity in animals at nonphysiological levels

**12. Ecological Information**

## Ecotoxicology Assessment

## Acute aquatic toxicity:

Based on acute aquatic toxicity values, not classified.

## Chronic aquatic toxicity:

Not classified, based on readily biodegradability and low acute toxicity.

## Toxicity to fish:

Acute toxicity to fish is very low.

## Toxicity to daphnia and other aquatic invertebrates:

Acute toxicity to freshwater and marine invertebrates is very low.

## Toxicity to algae:

Acute toxicity to aquatic plants very low.

## Toxicity to bacteria:

Low toxicity to sewage microbes.

## Toxicity to fish (Chronic toxicity):

Chronic toxicity to fish is expected to be low.

## Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

No Data Available.

## Persistence and degradability

## Biodegradability:

76 %

Rapidly degradable.

Biotic Degradability: BOD 76% (5 day).

## Bioaccumulative potential

## Bioaccumulation:

Bioconcentration factor (BCF): 1 - 4.5

This material is not expected to bioaccumulate.

## Mobility in soil

## Distribution among environmental compartments:

Stability in water- no data available

Stability in soil - Low absorption to soil particulates predicted

## Additional advice

## Environmental fate and pathways:

No additional information available.

## Results of PBT and vPvB assessment

Not applicable.

## Other adverse effects

Additional ecological information:  
No additional information available.

### 13. Disposal considerations

#### 13.1 Waste treatment methods

##### Disposal considerations

Generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some methanol residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Dispose of spilled material in accordance with state and local regulations for hazardous waste. Do not put spilled material in the soil, waterways, drains or sewers. Recycling is the recommended disposal method. Biological treatment may be used for dilute aqueous waste. Incineration should only be performed using a legally approved incinerator fitted with emission controls. Incineration or biological treatment should be carried out at a federally or state-permitted disposal facility. Methanol wastes are not suitable for underground injection. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete. Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

RCRA P-Series: No listing

RCRA U-Series: Methanol (CAS# 67-56-1); waste classification: U154 (ignitable waste)

### 14. Transport information

*Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100-177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.*

##### US Department of Transportation

Proper Shipping Name: Methanol

Hazard class: 3

UN/NA Number: UN 1230

Subsidiary hazard: 6.1

Packing Group: II



Safety Data Sheet

# Methanol

Date: 14 Aug 2017

Rev. 0

NAERG: Guide #131

Packaging Authorization: Non-Bulk: 49 CFR 173.202; Bulk: 173.242

Packaging Exceptions: 49 CFR 173.4(b), 173.150

## WHMIS TDG

UN/NA Number: UN 1230

Proper Shipping Name: Methanol

Class: 3

Subsidiary Risk: 6.1

Packing Group: II

## Mexico Transport Information

UN-No.: UN 1230

Proper Shipping Name: Methanol

Hazard Class: 3

Subsidiary Risk: 6.1

Packing Group: II

## Classification of substance in compliance with UN recommendations

UN number: 1230

Hazard Class: 3

Sub-risks: 6.1

Packing Group: II

Proper shipping name: UN 1230, Methanol

## ADR (Transportation by Road)

Hazard Class: 3

Packing Group: II

Danger Label, Tanks: 3 + 6.1

Danger Label, Packages: 3 + 6.1

Hazchem: 2WE

## RID (Transportation by Rail)

Hazard Class: 3

Packing Group: II

Danger Label, Tanks: 3 + 6.1

Danger Label, Packages: 3 + 6.1

## ANDR (Transportation by Inland Waterways)

Hazard Class: 3

Packing Group: II

Danger Label, Tanks: 3 + 6.1

Danger Label, Packages: 3 + 6.1

## ICAO/IATA

UN-No.: UN 1230

Proper Shipping Name: Methanol

Hazard Class: 3  
Sub-Risk: 6.1  
Packing group: II

IMDG (Maritime Transport)  
UN/ID No. UN 1230  
Proper Shipping Name: Methanol  
Hazard Class: 3  
Subsidiary Risk: 6.1  
Packing group: II  
EmS Code: F-E, S-D  
MFAG: 19 (IMDG suppl. 2002 p. 40)  
Marine Pollutant: No

Limited Quantities (LQ):

When substances and their packaging meet the conditions established by ADR, RID, and ADNR only the following prescriptions shall be complied with:

\*Each package shall display a diamond-shaped figure with the following inscription: "UN1230".

\*In the case of different goods with different identification numbers within a single package, the inscription shall be "LQ".

## 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for methanol

#### US State Regulations

Chemicals associated with methanol, which are subject to the state right-to-know regulations are listed along with the applicable state(s):

Methanol (CAS# 67-65-1)

California Prop. 65

WARNING: This product contains the following chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.

Illinois Listed  
Massachusetts Listed  
Minnesota Listed  
New Jersey Listed  
New York Listed  
Pennsylvania Listed  
Rhode Island Listed

#### U.S. Federal Regulations

**OSHA Hazard Communication Standard:**

This product contains "Hazardous Chemicals" as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Flammable Liquid  
Target organ effect  
Toxic by Inhalation  
Toxic by skin absorption  
Irritant

**Environmental Regulations:**

SARA 311/312 reporting (40 CFR 370, subparts B and C):

Flammable  
Acute toxicity  
Reproductive toxicity  
Serious eye damage/eye irritation  
Specific target organ toxicity

SARA 313:

Methanol (CAS# 67-56-1) – Listed, subject to reporting

SARA 302/304:

Methanol (CAS# 67-56-1) – Listed, subject to reporting

CERCLA Hazardous Substance

Methanol (CAS# 67-56-1) – reportable material – RQ = 2268 kg (5000 lbs)

## Canada Regulations

Canadian WHMIS Hazard Symbol and Classification:



Signal Word: Danger

Canadian Controlled Products Regulations (CPR): Methanol has been classified according to CPR – SDS contains the required information.

Canadian Ingredient Disclosure List (IDL): Methanol is listed.

Canadian National Pollutant Release Inventory (NPRI): Methanol is listed.

**European Union**

Labeling according to EU Regulation 1272/2008



Signal Word: Danger

## Hazard Statements:

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.

## Precautionary Statements:

## Prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.

## Response:

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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P311 - Call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3 Other hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).  
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**Chemical Inventories**

Methanol is listed on the chemical inventories of the following countries or qualifies for an exemption:

Australia (AICS)  
Canada (DSL)  
China (IECSC)

Europe (REACH)\*  
Japan (ENCS)  
Japan (ISHL)  
Korea (KECL)  
New Zealand (NZIoC)  
Philippines (PICCS)  
Taiwan (TCSI)  
United States (TSCA)

*\* Please note that the manufacturer or importer must be registered in Europe in order to make or import this product.*

## 16. Other information

Hazardous Material Information System (HMIS)

Health: 4

Flammability: 3

Physical Hazard: 0

National Fire Protection Association (NFPA)

Health: 1

Flammability: 3

Instability: 0

Revised Sections in this SDS:

This is Rev 0 of the SDS.

Date of initial SDS: 28 August 2017

Date of this revision: 28 August 2017

## DISCLAIMER

The information contained in this Material Safety Data Sheet is offered in good faith as accurate but does not purport to be all-inclusive. Health and safety precautions in this Material Safety Data Sheet may not be adequate for all individuals and/or situations. It is the user's responsibility to determine the suitability of any material for a specific purpose, adopt such safety precautions as may be necessary and comply with all applicable laws and regulations. Nothing herein is to be construed as recommending any practice or the use of any product in violation of any patent or of any law or regulation. THE CHEMICAL SUPPLY makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability or of fitness for a particular purpose with respect to the information set forth in this Material Safety Data Sheet or to the product of which the information refers. Accordingly, THE CHEMICAL SUPPLY will assume no liabilities in connection with any use of or reliance on this information.