

**Methanol**  
**34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Methanol

SDS Number : 000000020240

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : CHEM-SUPPLY Pty Ltd  
38-50 Bedford St.  
Gillman SA 5013, Australia

For more information call : +61 8 8440 2000  
(Monday-Friday, 9:00am-5:00pm)

**In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-**  
: **527-3887**  
:  
: **CHEMTREC in Australia: +(61)-290372994**  
: (24 hours/day, 7 days/week)

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2  
Acute toxicity, Category 3, Oral  
Acute toxicity, Category 3, Inhalation  
Acute toxicity, Category 3, Dermal  
Specific target organ toxicity - single exposure, Category 1

**GHS Label elements, including precautionary statements**

Symbol(s) :   

Signal word : Danger

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

- Hazard statements : Highly flammable liquid and vapour.  
Toxic if swallowed, in contact with skin or if inhaled.  
Causes damage to organs.
- Precautionary statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.
- Response:**  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF exposed: Call a POISON CENTER or doctor/ physician. Remove/ Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- Storage:**  
Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
Store locked up.
- Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.
- Other hazards which do not result in classification : Repeated or prolonged exposure may irritate eyes, skin and respiratory system.

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

**3. COMPOSITION/INFORMATION ON INGREDIENTS**Formula : CH<sub>4</sub>O

Chemical nature : Substance

CAS-No. : 67-56-1

**Hazardous components**

Chemical name	CAS-No.	Concentration
Methanol	67-56-1	<= 100%

**4. FIRST AID MEASURES**

General advice : First aider needs to protect himself.  
Move out of dangerous area.  
Take off all contaminated clothing immediately.  
Show this safety data sheet to the doctor in attendance.

Inhalation : Call a physician immediately.  
Remove to fresh air.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.  
Use oxygen as required, provided a qualified operator is present.

Skin contact : After contact with skin, wash immediately with plenty of water.  
Call a physician immediately.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids.  
Protect unharmed eye.  
Call a physician immediately.

Ingestion : Immediately give large quantities of water to drink.  
Do NOT induce vomiting.  
Never give anything by mouth to an unconscious person.  
Call a physician immediately.

**5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)

## Methanol

### 34966-1L

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

	Dry powder
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	: Flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO <sub>2</sub> ) Formaldehyde
Special protective equipment for firefighters	: Wear self-contained breathing apparatus and protective suit.
Further information	: Use water spray to cool unopened containers. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  : HAZCHEM Code: 2WE

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Ensure adequate ventilation. Remove all sources of ignition. Wear personal protective equipment. Unprotected persons must be kept away.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.
Methods for cleaning up	: Ventilate the area. No sparking tools should be used. Use explosion-proof equipment. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

**7. HANDLING AND STORAGE****Handling**

Advice on safe handling : Exhaust ventilation at the object is necessary.  
 Use explosion-proof equipment.  
 Wear suitable protective clothing and gloves.

Advice on protection against fire and explosion : The heavy vapours can overcome a considerable distance up to the source of ignition.  
 Use only in explosion-proof areas.  
 Keep product and empty container away from heat and sources of ignition.  
 Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

Temperature class : T1

**Storage**

Requirements for storage areas and containers : Store in area designed for storage of flammable liquids.  
 Protect from physical damage.  
 Keep containers tightly closed in a dry, cool and well-ventilated place.  
 Store in original container.  
 Keep locked up or in an area accessible only to qualified or authorised persons.

Further information on storage conditions : Product is hygroscopic.

Materials to avoid : Oxidizing agents

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Methanol	67-56-1	STEL : Short Term Exposure Limit (STEL):	250 ppm 328 mg/m <sup>3</sup>	12 2011	AU NOEL: Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)
		SKIN_DES : Skin designation:	Can be absorbed through the	12 2011	AU NOEL: Australia. National Workplace OELs (Workplace

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

			skin.		Exposure Standards for Airborne Contaminants, Appendix A)
		TWA : Time Weighted Average (TWA):	200 ppm 262 mg/m <sup>3</sup>	12 2011	AU NOEL: Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)
		SKIN_DES : Skin designation:	Can be absorbed through the skin.	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
		STEL : Short Term Exposure Limit (STEL):	250 ppm 328 mg/m <sup>3</sup>	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
		TWA : Time Weighted Average (TWA):	200 ppm 262 mg/m <sup>3</sup>	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

**Engineering measures**

Use with local exhaust ventilation.

Electrical equipment should be protected to the appropriate standard.

**Personal protective equipment**

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : Impervious butyl rubber gloves  
Gloves must be inspected prior to use.  
Replace when worn.

Eye protection : Safety goggles

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

- Skin and body protection : Wear as appropriate:  
Solvent-resistant apron  
Flame retardant antistatic protective clothing.  
If splashes are likely to occur, wear:  
Protective suit
- Hygiene measures : When using do not eat, drink or smoke.  
Wash hands before breaks and immediately after handling the product.  
Keep working clothes separately.  
Do not swallow.  
Do not breathe vapours or spray mist.  
Avoid contact with skin, eyes and clothing.
- Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.  
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.  
Do not swallow.  
Do not breathe vapours or spray mist.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Physical state : liquid
- Colour : colourless
- Odour : characteristic
- pH : Note: Not applicable
- Melting point/range : -98 °C
- Boiling point/boiling range : 64 - 65 °C at 1,013 hPa
- Flash point : 52 °F (11 °C)  
Method: DIN 51755
- Flammability : Not applicable
- Lower explosion limit : 5 %(V)

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Upper explosion limit	: 50 %(V)
Vapour pressure	: 128 hPa at 20 °C(68 °F)  532 hPa at 50 °C(122 °F)
Density	: 0.79 g/cm <sup>3</sup> at 20 °C
Water solubility	: Note: completely miscible
Partition coefficient: n-octanol/water	: log Pow: -0.71
Ignition temperature	: 455 °C Method: DIN 51794
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: Note: At normal pressure may be distilled without decomposition.
Viscosity, dynamic	: ca. 0.55 mPa.s at 25 °C
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 32.04 g/mol

**10. STABILITY AND REACTIVITY**

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks.



**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Keep away from direct sunlight.

Incompatible materials to avoid : Oxidizing agents

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Formaldehyde

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50: 5,630 mg/kg  
Species: Rat

Acute inhalation toxicity : LC50: > 80 mg/l  
Exposure time: 4 h  
Species: Rat

Acute dermal toxicity : LD50: > 10,000 mg/kg  
Species: Rabbit

Skin irritation : Species: Rabbit  
Result: irritating

Eye irritation : Species: Rabbit  
Result: irritating

Sensitisation : Note: no data available

Repeated dose toxicity  
Methanol : Species: Rat  
Application Route: Inhalation  
Test substance: Methanol  
Developmental Toxicity  
NOAEL (maternal toxicity)  
10,000 ppm  
NOAEL (developmental toxicity)  
5,000 ppm

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Skeletal and visceral malformations.

Genotoxicity in vitro  
Methanol : Note: In vitro tests did not show mutagenic effects

Genotoxicity in vivo  
Methanol : Note: In vivo tests did not show mutagenic effects

Further information : Note: When swallowed, there is a danger of blindness.

**12. Ecological information****Toxicity**

Toxicity to fish : LC50: 15,400 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other  
aquatic invertebrates : EC50: > 10,000 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)

Toxicity to algae : Note: no data available

Toxicity to bacteria : EC50: ca. 71,000 mg/l  
Species: Bacteria

**Persistence and degradability**

Biodegradability : Result: Readily biodegradable.  
Value: 99 %  
Method: OECD Test Guideline 301D

**Bioaccumulative potential**

Bioaccumulation : Note: Bioaccumulation is unlikely.

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Mobility in soil  
Mobility : Note: no data available

**Other adverse effects**

Additional ecological  
information : Do not flush into surface water or sanitary sewer system.

Biochemical Oxygen  
Demand (BOD) : Value: 1,120 mg/g  
Chemical Oxygen Demand  
(COD) : Value: 1,500 mg/g

**13. DISPOSAL CONSIDERATIONS**

Product : In accordance with local and national regulations.

**14. TRANSPORT INFORMATION****ADR**

UN/ID No. : UN 1230  
Description of the goods : METHANOL  
Class : 3  
Packing group : II  
Classification Code : FT1  
Hazard Identification Number : 336  
Labels : 3 (6.1)

**ADG ROAD**

UN/ID No. : UN 1230  
Description of the goods : METHANOL  
Class : 3  
Packing group : II  
Labels : 3 (6.1)

**IATA**

UN/ID No. : UN 1230  
Description of the goods : Methanol  
Class : 3  
Packing group : II  
Labels : 3 (6.1)  
Packing instruction (cargo) : 364

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

aircraft)  
Packing instruction : 352  
(passenger aircraft)  
Packing instruction : Y341  
(passenger aircraft)

**IMDG**

UN/ID No. : UN 1230  
Description of the goods : METHANOL  
Class : 3  
Packing group : II  
Labels : 3 (6.1)  
EmS Number 1 : F-E  
EmS Number 2 : S-D

Marine pollutant : no

HAZCHEM Code: 2WE

**15. REGULATORY INFORMATION****National regulatory information**

Standard for the Uniform : Schedule 6  
Scheduling of Medicines and  
Poisons

**Other international regulations****Notification status**

US. Toxic Substances : On TSCA Inventory  
Control Act

Australia. Industrial Chemical : On the inventory, or in compliance with the inventory  
(Notification and  
Assessment) Act

Canada. Canadian : All components of this product are on the Canadian DSL  
Environmental Protection Act  
(CEPA). Domestic  
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

**Methanol****34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**16. OTHER INFORMATION****Sources of key data used to compile the Safety Data Sheet:**

1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
2. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
3. List of Designated Hazardous Substances [NOHSC:10005(1999)]
4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
5. Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), No. 19 [NDPSC: 2004]
7. National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

**Methanol**

**34966-1L**

Version 1.1 1

Revision Date 06/11/2017

Print Date 02/13/2019

Prepared by:  
Honeywell Performance Materials and Technologies Product Stewardship Group

End of Safety Data Sheet