

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the product

Product code: M2097

Product name: Methanol

CAS No.: 67-56-1

1.2 Recommended use and restriction on use

General use : Not available

Restriction on use : Never drink, Not used except for experimental, research and industrial applications.

1.3 Manufacturer / Supplier / Distributor information

Importer/distributors identification

Company : ASIA CHEMIE (THAILAND) CO., LTD.

Address : 44/27 Moo.4 T.Huaykapi A.Muangchonburi, Chonburi, Thailand. 20130

Telephone number : +66 3838 7988

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E-mail : asiachemie@gmail.com, natchakot@asiachemie.com, natchakot@gmail.com

2. Hazards identification

2.1 GHS Classification

Flammable liquids: Category2

Acute toxicity (oral): Category3

Acute toxicity (dermal): Category3

Acute toxicity (inhalation: vapor): Category3

Specific target organ toxicity (Single exposure): Category1

2.2 GHS label elements

Hazard symbols



Signal words : Danger

Hazard statements

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.

Precautionary statements

P201 Obtain special instructions before use.

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 gas/mist/vapours/spray.

P261 Avoid breathing gas/mist/vapours/spray.

P264 Wash hands 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.

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

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

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

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

P308+P313 If exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment

P330 Rinse mouth.

P370+P378 In case of fire: Use Suitable extinguishing media for extinction.

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/international regulation

2.3 Other hazards which do not result in classification : (NFPA Classification)

Not available

3. Composition/information on ingredients

Chemical Name	Synonyms	CAS No.	Concentration (%)
Methanol	Wood alcohol; Methyl Alcohol; Monohydroxymethane; Methyl hydroxide; Methyl hydrate; Methyl hydrid; Wood naphtha;	67-56-1	100

4. First aid measures

4.1 Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.

4.2 Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.
- Take the doctor's examination.

4.3 Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.
- Get medical attention immediately.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.
- Take the doctor's examination.

4.4 Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Get medical attention immediately.

4.5 Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

4.6 Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

5. Fire-fighting measures

5.1 Suitable (Unsuitable) extinguishing media

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

5.2 Specific hazards arising from the chemical

- Causes damage to organs
- Causes serious eye irritation
- Highly flammable liquid and vapour
- Toxic if inhaled
- Toxic if swallowed

5.3 Special protective actions for firefighters

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep containers cool with water spray.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

6.2 Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

6.3 Methods and materials for containment and cleaning up

- Appropriate container for disposal of spilled material collected.
- Dike for later disposal.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

7. Handling and storage

7.1 Precautions for safe handling

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling.
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

7.2 Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

8. Exposure controls/personal protection

8.1 Exposure limits

ACGIH TLV

- [Methanol]: TWA, 200 ppm (262 mg/m³) STEL, 250 ppm (328 mg/m³) Skin

OSHA PEL

- [Methanol]: 260

8.2 Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

8.3 Individual protection measures, such as personal protective equipment

Respiratory protection

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use.
- Any chemical cartridge respirator with organic vapor cartridge(s).
- Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

Eye protection

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

Hand protection

- Wear appropriate chemical resistant glove.

Skin protection

- Wear appropriate chemical resistant protective clothing.

Others

- Not available

9. Physical and chemical properties

A. Appearance	
- Appearance	Liquid
- Color	colorless
B. Odor	alcohol odor
C. Odor threshold	100 ppm
D. pH	Not available
E. Melting point/Freezing point	-98 °C
F. Initial Boiling Point/Boiling Ranges	65 °C
G. Flash point	12 °C
H. Evaporation rate	Not available
I. Flammability (solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	44 / 5.5 %
K. Vapour pressure	127 mmHg (25°C)
L. Solubility	100 g/100 ml (20°C)
M. Vapour density	1.1 (air=1)
N. Specific gravity (Relative density)	0.79 (water=1)
O. Partition coefficient of n-octanol/water	-0.77
P. Autoignition temperature	464 °C
Q. Decomposition temperature	Not available
R. Viscosity	0.614 cP
S. Molecular weight	32.04
T. Molecular formula	CH ₃ OH

10. Stability and reactivity**10.1 Chemical Stability**

- This material is stable under recommended storage and handling conditions.

10.2 Possibility of hazardous reactions

- Cylinders exposed to fire may vent and release flammable gas.

10.3 Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with heat, sparks, flame or other ignition sources.

10.4 Incompatible materials

- Not available

10.5 Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. Toxicological information**11.1 Information on the likely routes of exposure****Respiratory tracts**

- Not available

Oral

- Toxic if swallowed

Eye • Skin

- Not available

11.2 Delayed and immediate effects and also chronic effects from short and long term exposure**Acute toxicity***** Oral**

- [Methanol] : LD50 6200 mg/kg Rat (EHCA)

*** Dermal**

- [Methanol] : LD50 17100 mg/kg rabbit (ECHA)

*** Inhalation**

- [Methanol] : LC50 82.1 mg/L/6 hr Rat (ECHA)

Skin corrosion/irritation

- Not available

Serious eye damage/irritation

- Not available

Respiratory sensitization

- Not available

Skin sensitization

- Not available

Carcinogenicity*** IARC**

- Not available

*** OSHA**

- Not available

*** ACGIH**

- Not available

*** NTP**

- Not available

*** EU CLP**

- Not available

Germ cell mutagenicity

- Not available

Reproductive toxicity

- Not available

STOT-single exposure

- Causes damage to organs

STOT-repeated exposure

- Not available

Aspiration hazard

- Not available

12. Ecological information**12.1 Ecotoxicity****Fish**

- [Methanol] : LC50 15400 mg/l 96 hr Bluegill (NITE: EHC 196, 1998)

Crustaceans

- [Methanol] : LC50 18260 mg/l 96 hr Daphnia magna (OECD TG 202) (ECHA)

Algae

- [Methanol] : ECHA EC50 22000 mg/l 96 hr Selenastrum capricornutum (OECD TG 201)

12.2 Persistence and degradability**Persistence**

- [Methanol] : log Kow -0.77

Degradability

- Not available

12.3 Bioaccumulative potential**Bioaccumulative potential**

- 97% 20 day (O2) (ECHA)

Biodegradation

- Not available

12.4 Mobility in soil

- 0.61 Koc – 0.13 Koc (at 6 °C) (ECHA)

12.5 Other adverse effects

- [Methanol]: Fish: 28d-NOEC Pimephales promelas=446.7 mg/L QSAR Crustacean: 21d-NOECDaphnia magna=208 mg/L QSAR

13. Disposal considerations**13.1 Disposal methods**

- it shall be treated by incineration.

- Oil water separation technology shall be applied as pre-waste treatment if it is applicable.

- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them.

13.2 Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act.
- Dispose of waste in accordance with all applicable laws and regulations.

14. Transport information**14.1 UN No. (IMDG CODE/IATA DGR)**

- 1230

14.2 Proper shipping name

- METHANOL

14.3 Hazard Class

- 3 (6.1)

14.4 IMDG CODE/IATA DGR Packing group

- II

14.5 Marine pollutant

- Not applicable

14.6 Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE: F-E (Non-water-reactive flammable liquids)
- EmS SPILLAGE SCHEDULE: S-D (Flammable liquids)

15. Regulatory information**15.1 National and/or international regulatory information****POPs Management Law**

- Not applicable

Information of EU Classification*** Classification**

- [Methanol] : H225, H301, H311, H331, H370

U.S. Federal regulations*** OSHA PROCESS SAFETY (29CFR1910.119)**

- Not applicable

*** CERCLA Section 103 (40CFR302.4)**

- [Methanol] : 2267.995 kg 5000 lb

*** EPCRA Section 302 (40CFR355.30)**

- Not applicable

*** EPCRA Section 304 (40CFR355.40)**

- Not applicable

*** EPCRA Section 313 (40CFR372.65)**

- [Methanol] : Applicable

Rotterdam Convention listed ingredients

- Not applicable

Stockholm Convention listed ingredients

- Not applicable

Montreal Protocol listed ingredients

- Not applicable

16. Other information

Reason for the revision: General update.

Date: 16/08/2014

Revision 5

Date: 21/01/2024

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