

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

1.1 Identification of the product

Product number: M2097

Name of material: Methanol

CAS No.: 67-56-1

1.2 Recommended use and restriction on use

General use : for experimental, research and industrial use.

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

Fax number : +66 3838 7989

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

Serious eye damage/irritation : Category2A

Carcinogenicity : Category2

Reproductive toxicity : Category1B

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

H319 Causes serious eye irritation

H331 Toxic if inhaled

H351 Suspected of causing cancer

H360 May damage fertility or the unborn child

H370 Causes damage to organs (Refer Section SDS 11)

Precautionary statements

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. Flammable liquids (chapter 2.6) 1, 2, 3

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.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P307+P311 If exposed: Call a POISON CENTER or doctor/physician.
 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.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P361 Remove/Take off immediately all contaminated clothing.
 P363 Wash contaminated clothing before reuse.
 P370+P378 In case of fire: Use Suitable extinguishing media for extinction (Refer Section MSDS 5).
 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)

NFPA grade (0 ~ 4 level)

- Health : 1 , Flammability : 3, Reactivity : 0

3. Composition/information on ingredients

Chemical Name	Synonyms	CAS No.	Concentration (%)
Methanol	Methyl Alcohol	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.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
- Remove contact lenses if worn.

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.
- Remove contaminated clothing, shoes and isolate.
- Take the doctor's examination.
- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

4.3 Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.
- 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.
- If exposed or concerned, get medical attention/advice.

5. Fire-fighting measures

5.1 Suitable (Unsuitable) extinguishing media

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

5.2 Specific hazards arising from the chemical

- Not available

5.3 Special protective actions for firefighters

- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Avoid inhalation of materials or combustion by-products.
- Do not access if the tank on fire.
- Use appropriate extinguishing measure suitable for surrounding fire.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.
- Vapor or gas is burned at distant ignition sources can be spread quickly.
- Due to the extremely low flash point, irrigating fire extinguishing may be less effective when put out a fire.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.
- Do not touch spilled material. Stop leak if you can do it without risk.
- Remove all sources of ignition.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Do not direct water at spill or source of leak.
- Avoid skin contact and inhalation.
- Cleanup and disposal under expert supervision is advised.
- Keep unauthorized people away, isolate hazard area and deny entry.

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

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal.
- Do not use plastic containers.
- Spilled material should be treated as a potential risk of waste collected.

7. Handling and storage

7.1 Precautions for safe handling

- Avoid direct physical contact.
- Since emptied containers retain product residue (vapor, liquid, solid) follow all MSDS and label warnings even after container is emptied.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not inhale the steam prolonged or repeated.
- Avoid contact with heat, sparks, flame or other ignition sources.
- Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any incompatibilities

- Do not apply direct heat.
- Store according to current laws and regulations
- Do not apply any physical shock to container.
- Keep in the original container.
- Please pay attention to incompatibilities materials and conditions to avoid.
- By specifying a storage area for carcinogenic substances.
- Collected them in sealed containers.
- Do not eat, drink or smoke when using this product.

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]:200 ppm 260 mg/m³

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 vaporcartridge(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

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

- Causes serious eye irritation

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 (EHC)

* Dermal

- [Methanol] : LD50 15800 mg/kg rabbit (NLM: ChemIDPlus)

* Inhalation

- [Methanol] : LC50 83.9 mg/L/4 hr Rat (NLM: ChemIDPlus)

Skin corrosion/irritation

- Not available

Serious eye damage/irritation

- Causes serious eye irritation

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

- May damage fertility or the unborn child

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 1340 mg/L Brown shrimp (NITE: EHC 196, 1998)

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**

- Not available

Biodegradation

- Not available

12.4 Mobility in soil

Not available

12.5 Other adverse effects

Not available

QRëC

13. Disposal considerations**13.1 Disposal methods**

- Since more than two kinds of designated waste is mixed, it is difficult to treat separately, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.
- Do disposal as neutralization, hydrolysis and oxidation-reduction.
- High temperature incinerating, high-temperature melt processing will be landfilled
- Solidification processing.

13.2 Special precautions for disposal

- The user of this product must dispose by oneself or entrust it to a waste disposer, a person who recycles other's waste or establishes and operates waste disposal facilities.
- 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

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, H331, H311, H301, 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 #3

Date: 08/05/2020

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