


Number: 001

### Section 1. Product and Company Identification

Product name: Propylene Glycol Monomethyl Ether Propionate
Synonyms: -
Recommended use and Restrictions on use: -
Manufacturer, Importer, or Supplier: Shiny Chemical Industrial Co., Ltd. Address: No.5, Yeong Gong 1 <sup>st</sup> Rd, Yeong An Dist., Kaohsiung 82841, Taiwan, R.O.C. Telephone: +886-7-8619171 ext. 711~714
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### Section 2. Hazards Identification

Classification: 1. Flammable liquids, Category 3 2. Specific target organ toxicity - single exposure, Category 3 3. Serious eye damage/eye irritation, Category 2A
Label elements:  Hazard pictograms: Flame, Exclamation mark Signal word: Warning Hazard Statements: 1. Flammable liquid and vapour. 2. May cause respiratory irritation. 3. May cause drowsiness or dizziness. 4. Causes serious eye irritation. Precautionary statements: 1. Avoid contact with skin. 2. Avoid contact with eyes. 3. If contacted with eyes, flush with plenty of water before seek for medical attention. 4. If swallowed, seek for medical attention. (Show the label to medical personnel)
Other Hazards: -

### Section 3. Composition/Information on Ingredients

Pure substance

Chemical Name: Propylene Glycol Monomethyl Ether Propionate
Synonyms: Methotate, PMP, 1-methoxy-2-propanol propionate
CAS NO. : 148462-57-1
Weight: $\geq 99.5\%$

### Section 4. First Aid Procedures

Description of first aid measures:

- Inhalation:
  1. Ensure self-safety based protection procedures before rescue.
  2. Remove contamination sources or move victims to fresh air.
  3. If breathing stops, have trained personnel administer artificial respiration.
  4. Get medical attention immediately.
- Skin contact:
  1. Don't touch such a chemical material directly. Wear leak-proof gloves if necessary.
  2. Remove contaminated clothing, shoes, and leather (such as watchstraps and belts).
  3. Wash contaminated sites tenderly with warm water for at least 20 minutes.
  4. Get medical attention immediately if irritation persists.
  5. Clean contaminated clothing, shoes, and leather thoroughly before reuse or abandon.
- Eye contact:
  1. Immediately lift eyelids, flushing eyes with plenty of water for at least 20 minutes until removing contaminated materials.
  2. Avoid flushing to the unaffected eye.
  3. Wash repetitively if irritation persists.
  4. Get medical attention immediately.
- Ingestion:
  1. Never give anything by mouth to victims will soon lose consciousness or lose consciousness already or with the convulsion.
  2. Have conscious victims gargle with water thoroughly.
  3. Don't induce vomiting.
  4. Have victim drink 240 ~ 300 mL of water.
  5. If vomiting occurs, lean victim forward to reduce the risk of ingesting vomits.
  6. Repeat administering water.
  7. Get medical attention immediately.

The most Important Symptoms and Hazardous Effects:

1. Health effects: Moderate risk.
2. Environmental impacts: Please consult Category No.12.
3. Physical and chemical hazards: No evidence of damage is shown.

Protection for emergency personnel: -

Notes to Physicians: -

### Section 5. Firefighting Measures

Suitable extinguishing media:

1. Chemical dry.
2. Carbon dioxide.
3. Alcohol foam.
4. Water mist.

Special hazards during firefighting: -

Firefighting procedures:

1. Don't enter the fire area without proper protection.
2. Evacuate and extinguish fire from safe distance or protected areas.
3. It will produce pressure to break storage tanks.
4. Flames will propagate and increase risks.
5. Cool down with water mist or spouts to avoid froth or vapor explosion.
6. The burning liquids float on water, so it is inappropriate to use dilute water to extinguish.
7. When the liquids flushing to sewers or public water systems, report to the authority.

Protective equipment for firefighters:

1. Eyes: Wear goggles (shields).
2. Respiration: Wear protective masks on both head and face.
3. Gloves: Solvent-proof gloves, boots.
4. Other: Emergent eyewash fountains and safety showers.

### Section 6. Accidental Release Measures

Personal precautions: Wear appropriate personal protective equipment.

Environmental precautions:

1. Block large spills.
2. Avoid leaks flushing to sewers or public water systems.
3. Report to firefighting or hygiene units.

Methods for cleaning up:

1. Remove all sources of ignition.
2. Absorb small spills or cover with fine sand.

3. After blocking large spills, recycle and handle absorbed pollutants.

### Section 7. Handling and Storage

#### Handling:

1. Keep away from sparks, naked fires and other ignition sources. Label no smoking in workplace.
2. Use minimal amount in a well-ventilated place. Avoid producing vapors or mist droplets.
3. Use ventilation systems and electric equipment with no sparks and earth connection to avoid becoming ignition sources.

#### Storage:

1. Use approved containers to store flammable liquids in workplace.
2. Storage tanks have earth connection. Transformation packs should connect with same electric potential. (Earth clamps must contact with naked metal)
3. Prepare emergency apparatus of extinguishing fire and handling leaks at any time.
4. Label and close containers tightly even not use. Empty containers may have risk residues.
5. Store in a shady, cool, dry, and well-ventilated place that sunshine cannot directly illuminate.
6. Keep away from heat, ignition sources, and incompatible substances, such as oxides and alkalis.
7. Store in labeled and appropriate containers and prevent from damage.
8. Non-use containers and empty barrels should keep close.
9. Use appropriate tanks, barrels, cabinets, rooms and buildings to store.
10. Consider installing spill detection and alarm systems.
11. Limit storage and restrain personnel from entering this district. Post warning marks in an appropriate place.
12. Separate storage areas from employee-centered workplace.
13. Do a flow inspection of leaks and damages regularly.
14. Prepare fire extinguish and emergency apparatus in storage areas and the nearby.
15. Obey relevant regulations of storage and handling for flammables or combustibles.

### Section 8. Exposure controls

Engineering controls: -

Control parameters			
TWA	STEL	CEILING	BEIs

-	-	-	-
Personal protective equipment: <ul style="list-style-type: none"> <li>• Respiratory protection: Protective masks on both head and face.</li> <li>• Hand protection: Solvent-proof gloves.</li> <li>• Eye protection: Goggles.</li> <li>• Skin and physical protection: Coveralls.</li> </ul>			
Hygiene measures: <ol style="list-style-type: none"> <li>1. Personal well-trained hygiene practices.</li> <li>2. Wash hands before toilet, eating, drinking, and smoking.</li> <li>3. Use soap and water to wash after working, and remove dust off the clothing.</li> </ol>			

### Section 9. Physical and Chemical Properties

Appearance: Transparent (colorless)	Odor: Sweet odor
Odor threshold: -	Melting point: -
pH : Acidity (wt %) max: 0.02	Boiling point/Boiling range: 161°C /157 ~ 167°C
Flammability (solid, gas): -	Flash point: 56°C
Decomposition temperature: -	Test method: close cup
Auto-ignition temperature: 351°C	Explosion limits: 0.6% ~ 20.0%
Vapor pressure: 0.9 mmHg (20°C)	Vapor density: 5.1
Density: 0.95 (Water = 1)	Solubility: 5.2 (20°C)
Partition coefficient (n-octanol/water, log K <sub>ow</sub> ): -	Volatility rate: -

### Section 10. Stability and Reactivity

Chemical stability: Stable.
Possibility of hazardous reactions: No evidence of hazardous response is shown.
Conditions to avoid: Air, Oxygen, Heat, Spark, Flames, Ignition sources, and Oxidation.
Materials to avoid: Strong oxidants will increase risks of explosion.
Hazardous decomposition products: Carbon oxide, volatile materials, etc.

### Section 11. Toxicological Information

Exposure Route: Skin, inhalation, ingestion, eye.
Symptoms: -
Acute toxicity: <ul style="list-style-type: none"> <li>• Inhalation: It may irritate respiratory tract and mucous membrane.</li> <li>• Skin: No severe symptoms show health effects. It may cause skin irritation.</li> <li>• Eyes: It may cause moderate irritation, including burning, weeping, red and</li> </ul>

swollen.

- Ingestion: No adequate symptoms show harmful effects after ingesting.
- LD<sub>50</sub> (animal test, entry): >12,000 mg/kg (rat, oral ∙ skin)
- LC<sub>50</sub> (animal test, entry): 6,072 ppm ( rat )

Chronic / Long-term toxicity: Repetitive or long exposure will cause nose irritation.

## Section 12. Ecological Information

Ecological toxicity:

1. LC<sub>50</sub> (fish): -
2. EC<sub>50</sub> (aquatic invertebrates): -
3. Bioconcentration factor (BCF): -

Persistence and degradability:

1. Biological Oxygen Demand (BOD): lb/lb in 5 days.
2. When released into the water, this material is expected to biodegrade.
3. When released into the air, this material is expected to react with free oxyhydrogen radicals and have a half-life of about - day.
4. Moderately toxic to aquatic organisms.
  - Half-life (Air): -
  - Half-life (Water surface): -
  - Half-life (Groundwater): -
  - Half-life (Soil): -

Bioaccumulative potential: -

Mobility in soil: -

Other adverse effects: -

## Section 13. Disposal Considerations

Waste disposal:

1. Spilled liquid and vapor may ignite a fire.
2. Staffs should wear appropriate personal protective equipments to enter spilled areas to remove all sources of ignition.
3. Block entrances to avoid leaks flushing to sewers or public water systems.
4. Report to firefighting or hygiene units.
5. Walks paths are slippery so it is appropriate to cover or absorb with fine sand or block large spills to handle and restore.
6. Use pure materials to absorb small spills.

## Section 14. Transport Information

United Nations Number (UN No.): 1993

UN Proper Shipping Name: Flammable liquids, N.O.S.

Transport Hazard classes: 3

Packaging Group: III
Marine pollutant (Yes/No): No
Specific Transport Measures and Precautionary Conditions: Handle carefully and keep away from children.

### Section 15. Regulatory Information

Applicable Regulations: 1. Labor Safety and Health Law. 2. Dangerous Chemical Material Symbol Act. 3. Fire Services Act.
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### Section 16. Other Information

References	1. CHEMINFO database, CCINFO CD-RAW, 98-2 2. HAZARDTEXT database, TOMES PLUS CD-RAW, Vol.41, 1999 3. RTECS database, TOMES PLUS CD-RAW, Vol.41, 1999 4. HSDB database, TOMES PLUS CD-RAW, Vol.41, 1999 5. Hazardous Substances Data Bank, EPA
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Notes	The symbol " - " in this sheet indicates no available information; the symbol " / " indicates the information is not applicable to the substance.