#### **Product and Manufacturer Information** 1.

**Product name:** Propylene glycol monomethyl ether

Other names: --

**Product use:** Ink Solvent, Leather Dyeing

**Manufacturer or Supplier**: Chiu Tze Chemical Co., Ltd.

Address: No. 818, Baiyu S. Rd., Guanyin Dist., Taoyuan City 328, Taiwan (R.O.C.)

**Tel**: 886-3-4735939

Fax: 886-3-4734269 Emergency Tel: 886-3-4735939

### **Hazard Identification**

**Hazard Material Category**: 1. Flammable liquid: Category 3

2 Serious eye damage/eye irritation Category 2A



Label Sign:

Label Statements : Flammable liquid . Warning

Sign: Warning

**Hazard Statements**: 1. Flammable liquid and vapour

2. Causes serious eye irritation

**Precautionary Statements**: 1. Store away from direct sunlight and in well-ventilated place

2. Minimize sources of ignition

3. Avoid eye contact

Others:

#### 3. **Composition/Information**

Chemical Name: Propylene glycol monomethyl ether (PM)

**Synonymous Name**: 1-Methoxy-2-hydroxypropane · 2-Methoxy-1-methylethanol · PGME ·

Propylene glycol methyl ether

CAS No.: 107-98-2

**Percentage of Hazardous Ingredient**: 100%

# Safety Data Sheet chiu Tze Chemical Co., Ltd.

# 4. First Aid Measures

# The First Aid Measures for Different Exposure Routes:

- Inhalation: 1. Remove the person from the source of exposure and seek for medical advice
- Skin Contact: 1. Flush the affected area with clean water and seek for medical advice
  - 2. Wash the polluted clothing thoroughly before next use
- Eye Contact: 1. Flush the affected area with clean water and seek for medical advice
- Ingestion: 1. Do not eat anything else, if may, drink some water and seek for medical help immediately

The Worst Symptoms: One may experience headache, stomach upset or fainted

Note to First-aid Personnel: Wear Class C protection equipment

Note to Doctor: —

# 5. Firefighting Guide

Fire Extinguisher: Carbon Dioxide, Alcohol Resistant Foam, Chemical Arid Powder or Mist

# Special occasions may occur during fire:

- 1. The smoke may contain the original material in addition to varying compositions of toxic or irritating combustion products.
- 2. The vapors are heavier than air and may travel a long distance and accumulated in low areas. Flashback may occur.

# Firefighting Guidelines:

- 1. Wash out the leak and keep it away from ignition
- 2. Remove the container away from the firing place
- 3. Fire at storage areas: Apply auto frame controlling kit or auto-spraying nozzle until the fire has been extinguished.
- 4. Evacuate immediately if tank safety valve sounded or color changed
- 5. Cool down the tanks or the containers with mist until the fire has been extinguished

**Special Equipment for Firefighters**: Respirators, protective gloves and fire clothing

# 6. Act of Leaking

#### **Individual Precaution:**

- 1. Isolate any irrelevant person from the leak until the leakage is cleaned
- 2. Eliminate all sources of ignition in vicinity of leak to avoid fire or explosion
- 3. Only trained people are allowed to clean up the leakage

#### **Environmental Precaution:**

1. Stop further leaking if possible

2. Prevent the leakage from entering into soil and sewerage

### **Cleaning Methods:**

- 1. Reduce vapor by mist and collect the leakage by dirt or sand
- 2. Gather the pelleted sands into properly labeled containers
- 3. Contact emergency center for massive leakage

# 7. Handling and Storage Methods

# Handling:

- 1. Away from any source of ignition
- 2. Avoid direct contact with eyes, skins and clothing and inhalation
- 3. Operation needs to be done in a well-ventilated place
- 4. Smoking is extremely prohibited
- 5. Containers, even those that have been emptied, can contain vapors; therefore, do not cut, drill, grind, weld or perform similar operations on or near empty containers

#### Storage:

- 1. Store away from direct sunlight an minimize sources of ignition such as static build up, heat, spark or flame
- 2. All sorts of containers have to be closed and labeled all the time
- 3. Storages have to be away from any incompatible materials
- 4. Examine the containers for leakage periodically

# 8. Exposure Controls

#### **Engineering Controls:**

- 1. Use local exhaust ventilation or other engineering controls to maintain airborne levels below requirements
- 2. If there are no applicable exposure limit requirements, general ventilation should be sufficient for daily uses

Control Parameters				
TWA	STEL	CEILING	BEIs	
50 ppm	100 ppm			

#### **Individual protection measures:**

**Respiratory protection**: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements. If there are no applicable exposure limit requirements, wear respiratory protection when one experienced adverse effects such as irritation or discomfort

# Safety Data Sheet chiu Tze Chemical Co., Ltd.

**Hand protection**: Wear chemical protective gloves **Eye protection**: Use safety glasses with side shields

Skin and Body protection: Wear clean, body covering clothing

# **Hygiene measures:**

- 1. After duty one should take off contaminated clothes, if any, clean thoroughly before next use or disposal. Laundry worker must be advised about the hazard
- 2. No food or smoking at workplace
- 3. Keep the workplace clean and neat

# 9. Physical and Chemical Properties

Appearance: Colorless liquid	Odor: Ether
Odor threshold: 10ppm	Melting point: Not applicable to liquids
pH: Not applicable-	Boiling point: 120°C
Flammability (solid, gas): Not applicable to	Flash Point: 32°C
liquids-	Test method: closed cup
Decomposition temp.: —	
Auto-ignition temp.: 286°C	<b>Explosion limit</b> : 1.6% ~ 13.8%
Vapor pressure: 11.8mmHg @25°C	
<b>Density</b> : 0.917 @25°C	Solubility: completely miscible with water @
	25°C
<b>Log Kow</b> : -0.53	<b>Evaporation Rate</b> : 0.79 (Butyl acetate=1)

# 10. Stability and Reactivity

Reactivity: Stable under recommended storage conditions

Possibility of hazardous reactions: Prevent contact with air for a long period of time or it may

form peroxides

**Conditions to avoid :** Exposure to elevated temperatures can cause product to decompose Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge

Incompatible materials: Strong Acids, strong bases and strong oxidizers

**Hazardous decomposition products**: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide and carbon dioxide

# 11. Toxicological Information

Route of exposure: Skin, inhalation, ingestion, eyes

**Symptoms**: Irritation, headache, dizziness and drowsiness

Acute toxicity:

**Skin**: Prolonged and repeated contact may cause slight skin irritation with local redness LD50, Rabbit, > 2 000 mg/kg

**Inhalation**: Brief exposure (minutes) is not likely to cause adverse effects. The odor is objectionable at 100 ppm; higher levels produce eye, nose, and throat irritation and are intolerable at 1000 ppm. Anesthetic effects are seen at or above 1000 ppm LC50, Rat, 6 Hour, vapour, > 25,8 mg/l

Oral: Small amounts swallower incidentally as a result of normal handling operations are not likely to cause injury

LD50, Rat, 4 016 mg/kg

**Eyes**: May cause slight temporary eye irritation. Corneal injury is unlikely

# **Chronic Toxicity or Long Term Effects:**

Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

It has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals whereas effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

# 12. Ecological Information

Ecotoxicity: LC50 (Fish): >2000 mg/l/96H

EC50 (Aquatic Invertebrates): –

Bio concentration factor (BCF): -

Persistence and degradability:

**Photodegradation** 

**Half-life** (air): 7-8 hours

**Bioaccumulative potential**: Low

**Mobility in soil**: Potential for mobility in soil is very high

Other adverse effects: -

# Safety Data Sheet Chiu Tze Chemical Co., Ltd.

# 13. Disposal Considerations

### Waste treatment methods:

- 1. Incineration
- 2. Bury
- 3. Any disposal practice must be in compliance with local regulations and laws

# 14. Transport Information

**UN number** : 3092

**UN shipping name**: 1-Methoxy-2-Propanol

Transport hazard class(es): 3

Packing group : **■** 

Environmental hazards: Not considered environmental hazardous

Special precautions: —

# 15. Regulatory Information

# **Applicable regulations:**

- 1. Occupational safety and health act
- 2. Regulations for the Labeling and Hazard Communication of Hazardous Chemicals
- 3. Standards of Permissible Exposure Limits at workplace
- 4. Road and traffic safety rules
- 5. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
- 6. Public Hazardous Materials and Flammable Pressurized Gases Establishment Standards and Safety Control Regulations
- 7. Assessment and Classification of Hazardous Chemicals Regulation

### 16. Other Information

References	1.CHEMINFO Database, CCINFO Disc, 2005-3		
	2.RTECS Database, TOMES PLUS Disc, Vol.65,		
	2005		
	3.HSDB Database, TOMES PLUS Disc, Vol.65, 2005		
	4.Material Safety Data Sheets, Genium Publishing Corporation,1997		
	5.NIOSH/OSHA, Occupational Health Guidelines for Chemical Hazards,1981		
	6.ChemWatch Database, 2005-1		

# Safety Data Sheet chiu Tze Chemical Co., Ltd.

SDS prepared	Name: Chiu Tze Chemical Co., Ltd.
by	Address: No. 818, Baiyu S. Rd., Guanyin Dist., Taoyuan City 328, Taiwan Tel: 03-4735939
<b>Revision Date</b>	2019.2.28
Note	"" No information is available at this time