บริษัท โมเดอนเคมีเคิล จำกัด (สำนักงานใหญ่) (MODERN CHEMICAL CO.,LTD. (Head Office))
82/80 ซอยเอกมัย 22(นวลน้อย) ถ.สุขุมวิท 63 แขวงคลองตันเหนือ เขตวัฒนา กรุงเทพมหานคร 10110โทร0-2715-0897-9 แฟกซ์.0-2392-3410-3
82/80 Soi Eakmai 22(nuan-noi) 63 Sukhumvit Rd, North Klong Ton, Wattana, Bangkok 10110 E-mail : service@modernchemical.co.th

SAFETY DATA SHEET

PM SOLVENT

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name:	PM SOLVENT
Recommended use:	Chemical for industry
Manufacturer/Supplier:	**MODERN CHEMICAL CO.,LTD.**
	82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63,
	Klong Tan Nuea, Watthana, Bangkok 10110
Telephone No:	0-2715-0897-9, 0-2392-3410-3
Fax No:	0-2715-0908-9, 0-2391-1571-2
Emergency Telephone No:	0-2715-0897-9, 0-2392-3410-3

2. HAZARDS IDENTIFICATION

Label elements

Pictogram

Signal word Warning

Hazard statement(s):

1.) Flammable liquid and vapour.

2.) Harmful if swallow.

3.) Irritating to eye; skin and respiratory system.

4.) Possible risk to health if under long time inhaling.

5.) Causes serious eye irritation.

Precautionary statement(s):

1.) Keep away from sources of ignition/oxides. - No smoking.

2.) Good ventilation of working area.

3.) Personal protection is necessary: glove goggle and mask.

4.) Keep container in a well-ventilated place.

5.) Avoid contact with eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym: Propyleneglycol monomethyl ether ,Propylene glycol methyl ether, 1-Methoxy-2-propanol, 2-Methoxy-1-methylethanol, PGME, 1-Methoxy-2-hydroxypropane.

Ingredients	% (w/w)	CAS NO.
PM SOLVENT	100	107-98-2

4. FIRST AID MEASURES

General advice: Use appropriate protective equipment clothing to take first aid in a safety area.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Wash skin with water for at least 5 minutes. Get medical attention if irritation develops or persists. Clean contaminated clothing and shoes thoroughly before reuse or abandon.

Eye contact: Rinse thoroughly with plenty of water for at least 20 minutes and Get medical attention immediately if irritation still persists.

Ingestion: Never give anything by mouth to an unconscious person. **Do NOT induce vomiting**. Have victim drink 240-300 ml of water to dilute material in stomach. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide, Polymer foam.

Unsuitable Extinguishing Media:

Do not use direct water stream.

Specific hazards arising from Chemicals:

Carbon oxides. Vapors heavier than air will propagate to distant places. It may cause flash back when meeting fire sources. May form peroxides with long-term exposure to air.

Special protective equipment for fire-fighters:

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. No smoking in area. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Use appropriate safety equipment.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological information.

Methods and Material for Containment and Clean Up:

Use sand, soil, and inert absorbing agents to collect leaks.
Small spill: use absorbing agents to absorb. Place in covered and labeled containers. Large spill: contact environmental or urgent handling units.

7. HANDLING AND STORAGE

Precautions for Safe Handling & Product Transfer:

Keep away from sparks, fire sources. Avoid producing vapors or mist droplets. Ventilate well and use minimal amount as possible. Install fire and spill emergency devices. Close containers tightly at any time and label.

Conditions for Safe Storage & Unsuitable Materials:

Store in shady, cool, dry, and well-ventilated place that sunshine cannot directly illuminate. Close containers tightly even not use. Keep away from incompatible substances and separate from operating areas. Keep away from fire sources, flames or sparks. Install auto-depressure and discharger devices on barrels. Check leaks regularly.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: TWA 100 ppm, TLV-STEL 125 – 150 ppm

Appropriate Engineering Controls: Ventilate the workplace, avoid visible fire, explosion-proof electrical equipment and measures should be taken.

Individual Protection Measures

Respiratory protection: When there are a large number of leaks, the rescue personnel should wear filter masks.

Hand protection: Leak-proof gloves. Butyl rubber gloves are better

Eye protection: Chemical safety goggles.

Skin and body protection: Leak-proof aprons or working clothing.

Hygiene measures: Take off the clothes of pollution as quickly as possible after the work. Forbid smoking or diet in the workplace. After dealing with this thing, must wash hands completely. Keep the working place clean.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form, Color and Odor : liquid, colourless ,Ether-like	**Evaporation rate :** 0.70 (nBuAc=1)
Melting Point : (-97) – (-95)°C	**Specific gravity :** 0.918-0.925 g/cm^3 at 20 °C
pH : 6-9	**Solubility in water :** Soluble
Boiling point : 120 °C	**Viscosity :** N/A
Vapour pressure : 11.8 mmHg at 25 °C	**Vapour density :** 2.57 – 3.11 g/l
Lower explosive limits : 1.6 – 2.5 %Vol	**Upper explosive limits :** 13.8 – 14.0 %Vol
Auto-ignition temperature : 270 – 286 °C	**Flash Point :** 32 - 42 °C
Odour threshold : 10 ppm	**Flammability (solid, gas) :** N/A
Decomposition temperature : N/A	**Solubility in other solvents :** Methanol, Alcohol, Ethylene glycol, Acetone, etc.
n-octanol/water partition coefficient (log P_{ow}) : -0.53	

10. STABILITY AND REACTIVITY

Chemical stability: Stable at normal temperature and on normal pressure.

Reactions: No data available

Possibility of Hazardous Reactions: Oxidizing agents (nitrate, perchlorate, peroxidative substances) Increase fire and explosion risk. Can not polymerize suddenly at normal temperature.

Conditions to avoid: Static, Heat, light, flames, sparks, Sunshine, Oxidizers and moisture.

Materials to avoid: Strong oxidizing agents, strong acids, strong bases.

Hazardous decomposition products: Carbon dioxide and Decomposition products can include and are not limited to aldehydes, ketones, organic acids.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 (Oral, rat): 6600 - 7200 mg/kg
LC50 (Inhalation, rat - 4 h): 15000 ppm
LD50 (Dermal, rabbit): 13000 mg/kg

Sensitization: Harmful if swallow.Irritating to eye; skin and respiratory system.Possible risk to health if under long time inhaling.Flammable liquid and vapour.Causes serious eye irritation.

Chronic toxicity: 3000 ppm/6h (pregnant rats 6-15 days, inhalation) may cause abnormal fetal development.

Further toxicological information: No data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: LC50 - Fish: >2000 mg/l - 96h
LC50 - Fathead minnow: 20800 mg/l
LC50 - Golden orfe: 4600 -10000 mg/l

Toxicity to daphnia and other aquatic LC50 - Daphnia magna: 23300 mg/l

Toxicity to algae: EC50 - Selenastrum capricornutumn: >1000 mg/l

Toxicity to bacteria: No data available

Biodegradability Remarks: 28 days, 96%

Bioaccumulative potential: Does not bioaccumulate.

Mobility: When released into the soil, this material is expected to biodegrade.

Affected in any other way: No data available

13. DISPOSAL CONSIDERATIONS

Material Disposal: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Container Disposal: Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 3092 Class: 3 Packing group: III

Proper shipping name: 1-METHOXY-2-PROPANOL

IMDG

UN-Number: 3092 Class: 3 Packing group: III

EMS-No: F-E, S-D Marine pollutant: No

Proper shipping name: 1-METHOXY-2-PROPANOL

IATA

UN-Number: 3092 Class: 3 Packing group: III

Proper shipping name: 1-Methoxy-2-propanol

15. REGULATORY INFORMATION

Application Regulation:

Labor regulations

Dangerous and hazardous chemicals warning label regulations

Traffic and transportation regulations

Labor Safety and Health Law.

Dangerous Chemical Material Symbol Act.

Fire Services Act.

Ordinances on Chem. Safety Supervision

16. OTHER INFORMATION

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