



SAFETY DATA SHEET

PMA

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

Product name:	PMA
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
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2. HAZARDS IDENTIFICATION

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

- 1.) Highly flammable liquid and vapour.
- 2.) Causes skin irritation.
- 3.) May be fatal if swallowed and enters airways.
- 4.) May cause drowsiness or dizziness.
- 5.) Toxic to aquatic life with long lasting effects.
- 6.) May damage the unborn child. Suspected of damaging fertility.

Precautionary statement(s)

- 1.) Keep away from heat/sparks/open flames/hot surfaces. - No smoking.



- 2.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- 3.) Avoid release to the environment.
- 4.) IF SWALLOWED: call a doctor/physician. Do NOT induce vomiting.
- 5.) IF IN EYES: Rinse cautiously with water for 15 minutes.
- 6.) IF ON SKIN Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym: 1-Methoxy-2-propyl acetate,1,2-Propanediol monomethyl ether acetate,Propylene glycol methyl ether acetate PGMEA

Ingredients	% (w/w)	CAS NO.
PMA	100	108-65-6

4. FIRST AID MEASURES

- General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- Inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
- Skin contact:** Wash off with soap and plenty of water. Consult a physician.
- Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion:** **Do NOT induce vomiting.** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

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

Unsuitable Extinguishing Media:

No data available

Specific hazards arising from Chemicals:

Carbon oxides

Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for fire fighting if necessary.



6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and Material for Containment and Clean Up:

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for Safe Handling & Product Transfer:

Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for Safe Storage & Unsuitable Materials:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: No data available

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual Protection Measures

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



- Eye protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin and body protection:** Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form, Color and Odor : liquid, colourless characteristic	Evaporation rate : 34 (n-Bu Acetate =100)
Melting Point : < -87 °C	Specific gravity : 0.97 g/cm ³ at 20 °C
pH : N/A	Solubility in water : Soluble
Boiling point : 148-151 °C	Viscosity : 1.2 mPa.sec at 20 °C
Vapour pressure : 3.1 hPa at 20 °C	Vapour density : N/A
Lower explosive limits: 1.5 %Vol	Upper explosive limits : 7 %Vol
Auto-ignition temperature: 333 °C	Flash Point: 45 °C
Odour threshold: N/A	Flammability (solid, gas): N/A
Decomposition temperature: N/A	Solubility in other solvents: N/A
n-octanol/water partition coefficient (log P_{ow}): 0.43	

10. STABILITY AND REACTIVITY

- Chemical stability:** No data available
- Reactions:** No data available
- Possibility of Hazardous Reactions:** no data available
- Conditions to avoid:** Heat, flames and sparks.
- Materials to avoid:** Strong oxidizing agents, Strong acids and strong bases
- Hazardous decomposition products:** Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

- Acute toxicity:** LD50 Oral - rat - 8532 mg/kg
LD50 Dermal - rabbit - > 5.000 mg/kg



- Sensitization:** May be harmful if inhaled. May cause respiratory tract irritation.
May be harmful if swallowed. May be harmful if absorbed through skin.
Causes eye irritation.
- Chronic toxicity:** No data available
- Further toxicological information:** No data available

12. ECOLOGICAL INFORMATION

Toxicity

- Toxicity to fish: LC50 - *Salmo gairdneri* - 100 - 180 mg/l - 96 h
- Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* (Water flea) - > 500 mg/l - 48 h
- Toxicity to algae: No data available
- Toxicity to bacteria: No data available
- Biodegradability Remarks:** Biotic/Aerobic - Exposure time 8 d, Result: 100 % - Readily biodegradable
- Bioaccumulative potential:** No data available.
- Mobility:** No data available
- 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-No: 3271 Class: 3 Packing group: III
- Proper shipping name: ETHERS, N.O.S. (2-Methoxy-1-methylethyl acetate)

IMDG

- UN-No: 3271 Class: 3 Packing group: III
- EMS-No: F-E, S-D Marine pollutant: No
- Proper shipping name: ETHERS, N.O.S. (2-Methoxy-1-methylethyl acetate)



IATA

UN-No: 3271

Class: 3

Packing group: III

Proper shipping name: Ethers, n.o.s. (2-Methoxy-1-methylethyl acetate)

15. REGULATORY INFORMATION

GHS - Labelling:

Hazard statement(s)

H226 Flammable liquid and vapour.

Precautionary statement(s)

none

Hazard symbol(s)

none

R-phrase(s)

R10 Flammable.

S-phrase(s)

None

16. OTHER INFORMATION

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