

Material Safety Data Sheet

Date Created: 03/07/2009

Date Updated: 02/06/2010

Version: 1.0

Section 1 - Product And Company Information

Product Propylene Glycol Monomethyl Ether Acetate (PMA)
Product No D006
Company Dynamic N.A. Inc
Address 23 Captains Walk, Milford, CT 06460, U.S.A.
Phone 1 914 965 2077
Fax 1 914 375 2093

Section 2 - Composition/Information On Ingredients

Synonyms 1,2-Propanediol Monomethyl Ether Acetate* PGMEA
1-Methoxy-2-acetoxypropane * propylene glycol methyl ether acetate
CAS # 108-65-6
Formula $C_6H_{12}O_3$

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Combustible (USA) Flammable (EU). Irritant.
May form explosive peroxides. Irritating to eyes.
Target organ(s): Liver. Kidneys.

HMIS RATING

HEALTH: 2*
FLAMMABILITY: 2
REACTIVITY: 0

NFPA RATING

HEALTH: 2
FLAMMABILITY: 2
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS

Flammable Hazards: Yes

Peroxide Former: Yes

EXPLOSION HAZARDS

Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. May form peroxides of unknown stability.

FLASH POINT

109.4 °F 43 °C Method: closed cup

EXPLOSION LIMITS

Lower: 1.3 % Upper: 13.1 %

AUTOIGNITION TEMP

354 °C

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

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Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep container closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

Unsuitable: Minimize exposure to air. If peroxide formation is suspected, do not open or move container.

SPECIAL REQUIREMENTS

Do not distill to dryness.

Section 8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	260 mg/m3
Poland		NDSch	520 mg/m3
Poland		NDSP	

Section 9 - Physical And Chemical Properties

Appearance	Colorless clear liquid		
Molecular Weight:	132.16 amu		
pH	N/A		
BP/BP Range	145.0 - 146.0 °C		760 mmHg
MP/MP Range	N/A		
Freezing Point	N/A		
Vapor Pressure	3.7 mmHg 20 °C		
Vapor Density	N/A		

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SG/Density	0.968 g/cm ³	
Flash Point	109.4 °F 43 °C	Method: closed cup
Explosion Limits	Lower: 1.3 % Upper: 13.1 %	
Flammability	N/A	
Autoignition Temp	354 °C	
Refractive Index	1.402	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Conditions of Instability: Upon exposure to air, product may slowly degrade, forming peroxides, which can be unstable.

Materials to Avoid: Strong oxidizing agents, Strong acids, Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Kidneys. Liver.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral

Rat
8532 mg/kg
LD50

Intraperitoneal

Mouse
750 MG/KG
LD50

Skin

Rabbit
> 5000 mg/kg
LD50

Section 12 - Ecological Information

N/A

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

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Section 14 - Transport Information

DOT (US)1

Proper Shipping Name: Ethers, n.o.s.

UN-Number: 3271

Class: 3

Packing group: III

Hazard Label: Flammable liquid

PIH: Not PIH

IATA

Proper Shipping Name: Ethers, n.o.s.

UN-Number: 3271

Class: 3

Packing group: III

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 10-36

Risk Statements: Flammable. Irritating to eyes.

S: 25

Safety Statements: Avoid contact with eyes.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Combustible (USA) Flammable (EU). Irritant.

Risk Statements: May form explosive peroxides. Irritating to eyes.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements: Target organ(s): Liver. Kidneys.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.