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SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	: FAS PTMG	
Grade	: 2000 (graded by molecular weight)	
Synonym	: PTMEG, PolyTHF	
General Use	: Raw material for polyurethane and other polymers,	
	polymer modifier	
Product description	: Polymerization material of THF(tetrahydrofuran)	
MSDS Number	: MG-4	

Manufacturer, importer, or supplier: Formosa Asahi Spandex Co., Ltd.

*Plant: Formosa Industrial Park No. 1-1 Mailiao, Yunlin County, Taiwan

Tel: +886-5-681-1255 Fax : +886-5-681-1250

*Sales Department: RM. 386, 12F, 201 Tun Hwa North Road, Taipei, Taiwan

Tel: +886-2-2712-2211 Ext. 6792 Fax: +886-2-2712-8718

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance of mixture

Skin corrosion/irritation- Category 3

Serious eye damage/eye irritation- Category 2B

Acute toxicity: inhalation- Category 5

Acute toxicity: oral- Category 5

Acute toxicity: skin: inhalation- Category 5

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram: No symbol

Signal word: Warning

Hazard statement(s)

Causes mild skin irritation

Causes eye irritation

May be harmful if inhaled

May be harmful if swallowed

May be harmful in contact with skin

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Precautionary statement(s)

Store in a well-ventilated area

Avoid exposure to places where the temperature is higher than 200° C

Keep away from igniting products, Prevent static electricity

Wear protective gloves/ eye protection/face protection

2.3 Other hazards

No additional information available.

3. Composition Information on Ingredients

Chemical Name: Poly(Tetramethylene Ether) Glycol

Purity: 99 weight % or more

Japanese Government class Reference Number in the Gazetted List: (7)-129

CAS No. : 25190-06-1

EINECS No. : Polymer manufactured from THF(EINECS No.203-726-8)

UN classification and UN number: not applicable

4. First Aid Measures

Inhalation

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

If breathing is difficult, give oxygen. Call a physician.

Eye Contact

Immediately wash eyes with fresh water at least 15 minutes, get medical attentions.

Skin Contact

Remove clothes stained, immediately wash the skin exposed to

this material with fresh water. If irritation or discoloration

of the skin develops, get medical attention.

Ingestion

Get medical attention.

5. Fire Fighting Measures

Flammable Properties

Flash point : $>250^{\circ}C^*$ (ASTM D92-18)

Ignition point : 385°C*

* The data is one measurement value, therefore should be used as reference.

See "10. Stability & Reactivity"

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Extinguishing Media

Use foam (alcohol foam) extinguisher or carbon dioxide extinguisher. The use of water, earth and sand also is good.

Fire Fighting Instructions

Keep personnel removed from and upwind of fire. Wear full fire fighting turnout gear and respiratory protection. Cool container with water spray.

6. Accidental Release Measures

Land Spill: If spilled or released, forbid persons to enter surroundings, wear protector (See "8. Exposure Controls/Personal Protection) and remove the material spilled or released. Remove quickly ignition source near the place spilled. If small amount of the material is spilled, absorb it with sand, waste cloth, sawdust or the like to recover. If large amount is spilled, prevent the material from flowing out by sand, sand bag or the like and ladle it into container to recover. Prevent the material or contaminated matter from flowing into the river or drainage canal.

7. Handling And Storage

- Handling : Seal the container with dried nitrogen gas, after opening the container since the material is readily oxidized.
- Storage : Keep it at temperatures not exceeding 50°C to avoid quality alternations.
 Segregate it from oxidizing material.
 Avoid contact with acid to prevent possible decomposition.

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8. Exposure Controls/Personal Protection			
Engineering Controls: If exposed at potentially high temperatures above 200°C, decomposition			
gas THF is considered to be generated. Therefore install ventilation system.			
Sa	Safety shower, hand washing and eye washer are required to be installed in the		
vic	vicinity.		
Personal Protective Equipment:			
Respiration protection: Gas mask for organic gas or airline masks.			
Eye protection: Wear protection glasses, face shield goggles.			
Protective gloves: Rubber gloves.			
Personal protective equipment: Long sleeve clothing, safety shoes.			
Exposure Guideline:			
Permissible Exposure Limit: Not established by OSHA			
Threshold Limit Value: Not established by AGGIH (1999)			
9. Physical And Chemical Properties			
Appearance	: transparent colorless liquid (white wax like solid under melting point)		

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Odor	: none	
РН	: neutral	
Vapor Pressure	: negligible	
Viscosity	: 630cps @ 40°C*	
Density	: 0.97 - 0.98 g/cm3 @40°C	
Melting point	: 26°C*	
Boiling point	: 200°C or higher*	
Specific heat	: 0.5 – 0.52 cal/g • °C*	
Solubility	: hardly soluble in water, easily soluble in ethers, benzene, ketones, etc.	
Kindling point	:385°C	
log Kow	: 32 or higher	
Flash point	>250 °C(Refer to ASTM D92-18)	

*The data is one measurement value, therefore should be used as reference .

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10. Stability And Rectivity

Oxidizing property : None Self-reactivity or Explosiveness : None Chemical stability : unstable at temperatures above 200°C Reactivity with other materials : If mixed with strong oxidizers such as nitric acid and conc. hydrogen peroxide, vigorous reaction may occur.

11. Toxicological Information

Acute Toxicity: Oral toxicity LD50 (lowest published lethal dose); 5 g/kg (rat)# Other Information: May be irritated to skin or eyes.

12. Ecological Information

No Information available

13. Disposal Considerations

This material should be dumped to burn. When treating the used container, remove the residual liquid from the container and burn the liquid. When waste liquid containing this material is produced, the liquid should be treated in appropriate waste treatment measures such as coagulation sedimentation process or activated sludge process, etc., after examining the load change of activated sludge to be used. During the operation, wear personal protection equipment (refer to the item of personal protection equipment). If the waste liquid is treated at contractors, give information including this MSDS and the component of the waste liquid to them while complying with all national, state and local regulations.

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14. Transport Information

Not regulated as a hazardous material by DOT, IMO or IATA.

15. regulatory Information

U.S.A.	: TSCA Inventory Status	reported/Included		
	SARA TITLE ISECTIONS 311/312, Hazard Categories :			
	Acute : yes, Chronic, Fire,	Reactivity, Pressure : no		
	SARA, CERCLA hazardous of	r toxic substances : no		
EU	: This material is not classified as a dangerous substance according to Directive 67/548/EEC.			
	Please refer to any other national measures that may be relevant.			

16. Other Information

Reference: NTIS (National Technical Information Service)

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