

Material Safety Data Sheet



PRODUCT NAME: PROPYLENE GLYCOL – INDUSTRIAL GRADE

CHEMICAL PRODUCT AND DISTRIBUTOR IDENTIFICATION

TRADE NAME: PROPYLENE GLYCOL INDUSTRIAL GRADE
CAS#: 57-55-6
DATE: August 17, 2011

DISTRIBUTOR: ACME-HARDESTY COMPANY
ADDRESS: 450 Sentry Parkway
Blue Bell, PA 19422

TELEPHONE: (866) 226-3834
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EMERGENCY: CHEMTREC (800) 424-9300

COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS#</u>	<u>CONCENTRATION%</u>
Monopropylene Glycol	57-55-6	100.00%W

HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR: Colorless, Odorless Liquid
SAFETY HAZARDS: Not classified as flammable, but will burn.
HEALTH HAZARDS: No specific hazards under normal use conditions.

U.S.A. – HMIS:	Health	2	NFPA:	Health	0
	Fire:	1		Fire:	1
	Reactivity:	0		Reactivity:	0

FIRST AID MEASURES

INGESTION: In general, no treatment is necessary unless large quantities are swallowed, however, get medical advice.

EYE CONTACT: Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

SKIN CONTACT: Remove contaminated clothing.
Flush exposed area with water and follow by washing with soap if available.

INHALATION: Remove to fresh air.
If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

NOTE: Treat symptomatically.
Following cases of gross overexposure, investigation of liver, kidney and eye function may be advisable.
Records of such incidents should be maintained for future reference.

FIRE FIGHTING MEASURES

FLASH POINT:	99°C / 210°F
AIR EXPLOSION/FLAMMABILITY LIMITS:	2.6 - 12.6 %(V)
AUTO IGNITION TEMPERATURE:	421°C / 790°F
SPECIFIC HAZARDS:	Clear fire area of all non-emergency personnel. Vapor is heavier than air, spreads along the ground and possible distant ignition. Will only burn if enveloped in a pre-existing fire Hazardous combustion products may include: Carbon monoxide.
EXTINGUISHING MEDIA:	
LARGE FIRES:	Should only be fought by properly trained fire fighters. Alcohol-resistant foam, water spray or fog
SMALL FIRES:	Dry chemical powder, carbon dioxide, sand or earth may be used
UNSUITABLE EXTINGUISHING MEDIA:	Do not use water in a jet.
FIREFIGHTER PROTECTIVE EQUIPMENT:	Wear full protective clothing and self-contained breathing apparatus.
ADDITIONAL ADVICE:	All storage areas should be provided with adequate fire-fighting facilities. Keep adjacent containers cool by spraying with water.

ACCIDENTAL RELEASE MEASURES

GENERAL:	Observe all relevant local and international regulations. Avoid contact with spilled or released material. Refer to Personal Protection and Disposal sections.
PROTECTIVE MEASURES:	Avoid inhaling vapor and/or mists. Avoid contact with the skin. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Use appropriate containment to avoid environmental contamination. Prevent entering in drains, ditches or rivers by using sand, earth or other appropriate barriers. Ventilate contaminated area thoroughly.
CLEAN UP METHODS:	
LARGE SPILLS (> 1 drum):	Transfer by mechanical means (vacuum truck) to salvage tank for recovery/safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
SMALL SPILLS (< 1 drum):	Transfer by mechanical means to labeled, sealable container for recovery or safe disposal. Allow residues to evaporate or soak up with absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
ADDITIONAL ADVICE:	Proper disposal should be evaluated based on regulatory status of this material (Disposal Considerations), potential contamination from subsequent use and spillage, and regulations governing disposal in the local area. Observe all relevant local regulations.

HANDLING AND STORAGE

GENERAL: Avoid breathing vapors or contact with material.
Only use in well-ventilated areas
Wash thoroughly after handling
Refer to Personal Protection section
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

HANDLING: Handling Temperature: Ambient.
Per good industrial hygiene practices, precautions should be taken to avoid breathing of material.
Use local exhaust extraction over processing area.
For lines and fittings, avoid copper, copper alloys, zinc.
Avoid contact with skin, eyes, and clothing.
Air-dry contaminated clothing in a well-ventilated area before laundering.
Extinguish any naked flames.
Do not smoke.
Remove ignition sources.
Avoid sparks.
Do not empty into drains.
Handling product in drums, safety footwear should be worn and proper handling equipment used.

STORAGE: Storage Temperature: 40°C maximum
Prevent all contact with water and with moist atmosphere.

TANKS: Must be clean, dry and rust-free.
Must be stored in a diked well-ventilated area, away from sunlight, ignition and other sources of heat.
Nitrogen blanket recommended for large tanks (capacity 100 m³ or higher).

DRUMS: Should be stacked to a maximum of 3 high.
Keep container tightly closed.
Keep dry.
Must be stored in a well-ventilated area, away from sunlight, ignition and other sources of heat.
Prevent ingress of water.

PRODUCT TRANSFER: Lines should be purged with nitrogen before and after product transfer.
Electrostatic charges may be generated during pumping.
Electrostatic discharge may cause fire.
Keep containers closed when not in use.

ADDITIONAL INFORMATION: Ensure that all local regulations regarding handling and storage facilities are followed.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

STABILITY/REACTIVITY DATA

STABILITY: Stable. Hygroscopic.

CONDITIONS TO AVOID: Heat, flames, and sparks.
Temperatures above 40°C

MATERIALS TO AVOID: Strong oxidizing agents.
Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbonyl and dioxolane derivatives may be formed

EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: None established

EXPOSURE CONTROLS: No exposure controls are ordinarily required under normal conditions of use.
It is good general industrial hygiene practice to minimize exposure to the material.

PERSONAL PROTECTIVE EQUIP.: Personal protective equipment (PPE) should meet recommended national standards.
Check with PPE suppliers.

RESPIRATORY PROTECTION: No respiratory protection is ordinarily required under normal conditions of use.
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

HAND PROTECTION: Use gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Incidental contact/Splash protection: PVC. Neoprene rubber. Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Thin disposable gloves should be avoided for long term use. When worn, use once and dispose. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

EYE PROTECTION: Chemical splash goggles (chemical mono-goggles).

PROTECTIVE CLOTHING: Skin protection not ordinarily required beyond standard issue work clothes.

ADDITIONAL INFORMATION: Wash hands before eating, drinking, smoking and using the lavatory.

PHYSICAL/CHEMICAL CHARACTERISTICS

APPEARANCE	:	Colorless Liquid.
ODOUR	:	Odorless.
pH	:	7
BOILING POINT	:	186 - 189°C / 367 - 372°F
MELTING / FREEZING POINT	:	-59°C / -74°F
FLASH POINT	:	99°C / 210°F
EXPLOSION / FLAMMABILITY LIMITS IN AIR	:	2.6 - 12.6 % (V)
AUTO-IGNITION TEMPERATURE	:	421°C / 790°F
VAPOUR PRESSURE	:	ca. 10 Pa @ 20°C / 68°F
SPECIFIC GRAVITY	:	1.04 @ 3.89°C / 39.00°F
DENSITY	:	1,036 kg/m ³ @ 20°C / 68°F
WATER SOLUBILITY	:	Completely miscible
SOLUBILITY IN OTHER SOLVENTS	:	Readily soluble in various organic solvents
n-OCTANOL/WATER PARTITION COEFFICIENT (log Pow)	:	ca. -1
DYNAMIC VISCOSITY	:	55 mPa.s @ 20°C / 68°F
VAPOR DENSITY (air=1)	:	2.5 @ 20°C / 68°F
HYGROSCOPICITY	:	Hygroscopic

TOXICOLOGICAL INFORMATION

BASIS FOR ASSESSMENT	:	Information given is based on product testing, and/or similar products, and/or components.
ACUTE ORAL TOXICITY	:	Low toxicity: LD50 >2000 mg/kg
ACUTE DERMAL TOXICITY	:	Low toxicity: LD50 >2000 mg/kg, Rabbit
ACUTE INHALATION TOXICITY	:	Expected to be of low toxicity: LC50 greater than near-saturated vapor concentration.
SKIN IRRITATION	:	Not irritating to skin.
EYE IRRITATION	:	Essentially non-irritating to eyes.
SENSITISATION	:	Not a skin sensitizer.
REPEATED DOSE TOXICITY	:	Low systemic toxicity on repeated exposure. Cats given high doses of MPG in diet showed a decrease in red blood Cell survival.
MUTAGENICITY	:	Not mutagenic.
CARCINOGENICITY	:	Not carcinogenic in animal studies.
REPRODUCTIVE AND DEVELOPMENTAL TOXICITY:	:	Not a developmental toxicant. Does not impair fertility.

ECOLOGICAL INFORMATION

ACUTE TOXICITY	:	
FISH	:	Low toxicity: LC/EC/IC50 > 100 mg/l
AQUATIC INVERTEBRATES	:	Low toxicity: LC/EC/IC50 > 100 mg/l
ALGAE	:	Low toxicity: LC/EC/IC50 > 100 mg/l
MICRO-ORGANISMS	:	Expected to have low toxicity: LC/EC/IC50 > 100 mg/l
MOBILITY	:	If entered in soil, it will be highly mobile and may contaminate groundwater. Dissolves in water.
PERSISTENCE/DEGRADABILITY	:	Readily biodegradable.
BIO-ACCUMULATION	:	Does not bio-accumulate significantly.

DISPOSAL CONSIDERATIONS

MATERIAL DISPOSAL	:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
CONTAINER DISPOSAL	:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Send to drum recoverer or metal reclaimer.
LOCAL LEGISLATION	:	In accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

TRANSPORT INFORMATION

US DOT CLASSIFICATION (49CFR): This material is not subject to DOT regulations
under 49 CFR Parts 171-180.

IMDG : This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply) : This material is not classified as dangerous under IATA regulations.

ADDITIONAL INFORMATION : This product may be transported under nitrogen blanketing.
Nitrogen is an odorless and invisible gas.
Exposure to nitrogen may cause asphyxiation or death.
Strict safety precautions must be observed when involved with a confined space entry.

REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

FEDERAL REGULATORY STATUS

NOTIFICATION STATUS:	AICS	Listed.
	DSL	Listed.
	INV (CN)	Listed.
	ENCS (JP)	Listed. (2)-234
	ISHL (JP)	Listed. 2-(8)-321
	ISHL (JP)	Listed. 2-(8)-323
	TSCA	Listed.
	EINECS	Listed. 200-338-0
	KECI (KR)	Listed. KE-29267
	PICCS (PH)	Listed.

SARA HAZARD CATEGORIES (311/312) : No SARA 311/312 Hazards.

STATE REGULATORY STATUS

PROPOSITION 65 : This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

PENNSYLVANIA RIGHT-TO-KNOW : Monopropylene glycol (57-55-6) 100.00% Listed.

OTHER INFORMATION

U.S.A. – HMIS:	Health	2	NFPA:	Health	0
	Fire:	1		Fire:	1
	Reactivity:	0		Reactivity:	0

The data herein are based on our current knowledge and believed to be reliable. Acme-Hardesty Co., provides this information without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

Users must make their own determination that handling, storage and use of the product in the anticipated manner is safe and appropriate. Because these actions of the user are out of our control, and may be beyond our knowledge, we do not assume responsibility and expressly disclaim liability for loss, damage, expense or any other claim arising out of or in any way connected with the handling, storage, use or disposal of the product.

Disposal of containers must comply with applicable federal, state and local laws and regulations. Empty containers should never be given to individuals.