

Propylene Glycol

MSDS Number: 7202, 7213

Revision Date: May 27, 2010

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

KOST USA, Inc
1000 Tennessee Ave.

Cincinnati, OH 45229

Contact: Customer Service
Telephone Number: (800) 661-9391
FAX Number: (513) 492-5555
E-Mail: sales@kostusa.com
Web: www.kostusa.com

Product Name: Propylene Glycol
Revision Date: May 27, 2010
Version: 1
MSDS Number: 7202, 7213
Common Name: 1,2-Propanediol
CAS Number: 112-27-6
Product Code: 7202, 7213
Chemical Family: Glycol
Chemical Formula: C₆H₁₄O₄
Synonyms: Monopropylene Glycol, MPG, PG, 1,2-Dihydroxypropanr
Product Use: Chemical Intermediate; Glycol

Emergency Telephone Number: 800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

Route of Entry: Eyes; Skin; Inhalation
Target Organs:
Inhalation: Vapours expected to be slightly irritating.
Skin Contact: Not an irritant
Eye Contact: May cause slight temporary irritation. Vapour or mist may cause irritation
Ingestion: Very low toxicity if swallowed. harmful effects not anticipated from small amounts

HMIS® Rating H*0/F1/PH0
NFPA-ratings (scale 0-4): Health = 0, Fire = 1, Reactivity = 0

This is not a WHMIS Controlled substance.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Perc.	Chemical Name
57556	>99.0%	Propylene glycol

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4 FIRST AID MEASURES

- Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Remove contaminated clothing and wash before reuse. Promptly flush skin with water until all chemical is removed.
- Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Remove contact lenses after initial 1-2 minutes of flushing and continue flushing. If effects occur get immediate medical attention.
- Ingestion:** Not a direct hazard.

Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 FIRE FIGHTING MEASURES

- Flash Point:** 103°C (217°F)
- Flash Point Method:** PMCC
- Autoignition Temperature:** 371°C (700°F)
- LEL:** 2.6% volume
- UEL:** 12.5% volume
- Flammability Classification:** OSHA/NFPA Class IIIB combustible liquid

Extinguishing Media: Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not use direct water stream.

Specific Hazards: Material will not burn unless preheated. Containers exposed to intense heat from fires should be cooled with large quantities of water.

Protective Equipment: Wear full protective clothing and self-contained breathing apparatus (SCBA).

Hazardous Combustion Products: Smoke may contain the original material in addition but not limited to: Carbon Monoxide, Carbon Dioxide.

6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Isolate area. Avoid contact with spilled material. Watch out for slippery conditions when spillage. Refer to Section 8 of this Material Safety Data Sheet for personal protective equipment.

Clean Up Methods: Contain spilled material if possible. Collect in suitable and properly labeled containers. Small spills: Pick up excess with inert absorbent material and place into separate waste container. Large Spills: Dike material. Keep away from drains and ground water. Pump into suitable and properly containers or salvage truck for recovery or safe disposal. See Section 13 for disposal considerations.

Additional Advice: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

7 HANDLING AND STORAGE

- Handling Precautions:** Do not swallow. Avoid contact with eyes, skin, or clothing. Consider normal working hygiene. Wash thoroughly after handling. Wash clothing before reuse and decontaminate or discard contaminated shoes. Do not expose containers to open flame, excessive heat, or direct sunlight. Do not puncture or drop containers. Handle with care and avoid spillage on the floor (slippage). Keep material out of reach of children. Use local exhaust over processing area.

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Storage Requirements: Keep away from heat, sparks, and flames. Protect container and its fittings from physical damage. Store in cool/dry area. Suitable packing materials.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use mechanical (general) ventilation to control airborne levels below exposure guidelines.

Protective Equipment: HMIS PP, H | Splash Goggles, Gloves, Apron, Vapor Respirator

Eyes/Face Protection: Usage of safety glasses/ goggles is recommended.

Skin Protection: Chemical resistant gloves; Apron; Boots; Face shield or Full suit selection will depend on task. Launder contaminated clothing before use.

Hand Protection: Use of gloves approved to relevant standards made from the following materials may provide suitable protection: PVC, Neoprene rubber or nitrile rubber. Personal hygiene is a key element of effective hand care.

Respiratory Protection: If ventilation does not control airborne concentrations, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Ingestion: Use good personal hygiene. Do not consume food in the work area. Wash hands before eating, drinking, smoking or using the restroom..

Exposure Guidelines/Other:

Exposure Limits:

Component	List	Type	Value
Propylene Glycol	WEEL	TWA Aerosol	10 mg/m ³

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless	Boiling Point:	>186°C (>367°F)
Physical State:	Liquid	Freezing/Melting Pt.:	-59°C (74°F)
Odor:	Slight to no odor	Solubility:	Completely
pH:	7.0 estimate	Spec Grav./Density:	1.04 @ 20°C
Vapor Pressure:	<0.1 mmHg @ 20°C		
Vapor Density:	2.5		

Evap. Rate:	0.01
Molecular Weight:	76.09
Viscosity:	46 mPa.s estimated
Molecular Formula:	C ₃ H ₈ O ₂

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal conditions.

Conditions to avoid: High Temperature.

Materials to avoid (incompatibility): Strong Oxidizing Agents. Strong Acids; Strong Bases.

Hazardous Decomposition products: Combustion will produce carbon dioxide and, possibly toxic chemicals such as

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carbon monoxide. Aldehydes; Alcohols; Other Organic Acids

Hazardous Polymerization:

Will not occur.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral (LD 50): Rat >20,000 mg/kg.

Inhalation (LC 50): 8h, Vapor, Rat >4.1 mg/l.

Skin irritation: Not irritating to skin.

Dermal Toxicity (LD 50): Rabbit >20,000 mg/kg (Low)

Eye irritation: Essentially non-irritating

Sensitation: Not a skin sensitiser

Chronic Toxicity and Carcinogenicity: Did not cause cancer in long term animal studies

Repeated Dose Toxicity: Shown effects on: Central Nervous Sytem

Mutagenicity: No evidence

Reproductive and Developmental Toxicity: Not a developmental toxicant. did not impair fertility.

12 ECOLOGICAL INFORMATION

Acute Toxicity:

Fish: Low toxicity: LC/EC/IC50 > 40,000 mg/l

Aquatic Invertebrates: Low toxicity: LC/EC/IC >4,000 mg/l

Algae: Low Toxicity: LC/EC/IC >15,000 mg/l

Microorganisms: Low Toxicity: LC/EC/IC >20,000 mg/l

Mobility: Dissolves in water. If product enters soil, it will be highly mobile and may contaminate ground water.

Persistence/degradability: Readily biodegradable.

Bioaccumulation: Does not bioaccumulate significantly.

13 DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. However, it should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

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Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

US DOT Classification (49CFR)

NOT REGULATED

Canadian Road and Rail Shipping Classification

NOT REGULATED

IMDG

NOT REGULATED

IATA/CAO

NOT REGULATED

15 REGULATORY INFORMATION

OSHA Hazard Communication Standard:

This product is not a "Hazardous Chemical" as defined by the OSHA 29CFR 1910.1200

SARA Hazardous Categories Section 311/312 (EPCRA):

Immediate (Acute): no

Delayed (Chronic): no

Fire: no

Reactive: no

Sudden Release: no

SARA Toxic Release Inventory Section 313 (TRI):

NONE

California Safe Water Drinking and Toxic Enforcement Act (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 List of Hazardous Chemicals

Component	Cas #	Amount
Propylene Glycol	57-55-6	>= 99.5%

Notification Status

AICS (AU)	Listed	
DSL (CA)	Listed	
IECS (CN)	Listed	
ENCS/ISHL (JP)	Listed	(2)-234, 2-(8)-321, 2-(8)-323
TSCA (US)	Listed	
EINECS (EU)	Listed	200-338-0
KECI (KR)	Listed	KE-29267
PICCS (PH)	Listed	
NZIoC (NZ)	Listed	



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COMPONENT / (CAS/PERC) / CODES

*Propylene glycol (57556 >99.0%) HAP, PA, TSCA

EU Labeling Requirements:

Not Regulated

REGULATORY KEY DESCRIPTIONS

HAP = Hazardous Air Pollutants

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

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OTHER INFORMATION

Disclaimer:

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END OF MSDS DOCUMENT