

PROPYLENE GLYCOL
1. PRODUCT AND COMPANY IDENTIFICATION
PRODUCT NAME: PROPYLENE GLYCOL

CHEMICAL FAMILY: GLYCOL

ALTERNATE TRADE NAME(S): PROPYLENE GLYCOL SEMI, PROPYLENE GLYCOL USP

Summit Research Tech
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 Scotts Valley, CA 95066
 +1-831-226-2948

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION
GHS LABEL


Exclamation
 mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H305: May be harmful if swallowed and enters airways.

H316: Causes mild skin irritation.

H320: Causes eye irritation.

PRECAUTIONARY STATEMENT(S)
General:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P273: Avoid release to the environment.

P102: Keep out of reach of children.

EMERGENCY OVERVIEW
PHYSICAL APPEARANCE: Clear, water-white liquid. Characteristic odor.

IMMEDIATE CONCERNS: No significant immediate hazards for emergency response are known. **OSHA**
HAZARD COMMUNICATION STANDARD: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

PROPYLENE GLYCOL**POTENTIAL HEALTH EFFECTS**

EYES: Moderately irritating to the eyes.

SKIN: No acute effects in normal industrial use.

INGESTION: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

INHALATION: Mists may cause respiratory irritation.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye and skin disorders may be aggravated by exposure.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS
1,2-Propanediol	> 99	57-55-6
Deionized Water	< 1	7732-18-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

SKIN: Flush skin with water. If irritation occurs, get medical attention.

INGESTION: No emergency medical treatment is necessary.

INHALATION: Move person to fresh air; if effects occur, consult a physician.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE EFFECTS: Irritation as noted above.

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

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or CO₂.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large amounts of water.

FIRE FIGHTING PROCEDURES: Clear fire area of unprotected personnel. The use of SCBA is recommended for firefighters. Water spray may be used to cool containers exposed to heat or flame. Runoff from fire control may be a pollution hazard.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Remove all sources of ignition and provide ventilation. Wear protective equipment as given in section 8. Absorb small spills with inert material (clay, sand). Prevent contamination of surface waters.

LARGE SPILL: Remove all sources of ignition and provide ventilation. Wear Protective equipment as given in Section 8. Dike around large spills to prevent spreading.

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7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep containers tightly closed when not in use. DO NOT cut or weld empty drums unless thoroughly cleaned.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields or chemical goggles.

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: No skin protection is required for single, short duration exposures. For prolonged or repeated exposures use impervious clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc.) Launder soiled clothes. Properly dispose of contaminated leather articles including shoes, which cannot be decontaminated.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Avoid prolonged or repeated breathing of vapors.

COMMENTS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic odor.

APPEARANCE: Clear, water-white liquid.

pH: Essentially neutral.

PERCENT VOLATILE: Not Determined

FLASHPOINT AND METHOD: Not Established

FLAMMABLE LIMITS: 2.6% to 12.6%

Notes: Based on propylene glycol. The flammable limits on this blend have not been determined.

AUTOIGNITION TEMPERATURE: No data available.

VAPOR PRESSURE: No data available.

PROPYLENE GLYCOL**VAPOR DENSITY:** Heavier than air.**BOILING POINT:** (212°F) to (370°F)**SOLUBILITY IN WATER:** Soluble**EVAPORATION RATE:** Slower than ether.**DENSITY:** 8.42 LBS/gallon**SPECIFIC GRAVITY:** ~ 1.01**10. STABILITY AND REACTIVITY****REACTIVITY:** Yes**HAZARDOUS POLYMERIZATION:** Will not occur.**STABILITY:** Stable under normal conditions.**CONDITIONS TO AVOID:** Acids, bases, or oxidizing agents.**HAZARDOUS DECOMPOSITION PRODUCTS:** None reported.**INCOMPATIBLE MATERIALS:** Avoid heat, flame and other sources of ignition.**11. TOXICOLOGICAL INFORMATION****ACUTE**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
1,2-Propanediol	20000 to 22000 mg/kg (rats), mg/kg (mice)	> 20800 mg/kg (Rabbit)

NOTES: No data available.**GENERAL COMMENTS:** Not Available**12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION:** Keep out of waterways.**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:** The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.**EMPTY CONTAINER:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.**RCRA/EPA WASTE INFORMATION:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR.

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Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: NOT DOT REGULATED

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: To the best of our knowledge, this product is not reportable under SARA 311/312.

FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: No CHRONIC: No

313 REPORTABLE INGREDIENTS: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.119--PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None listed

CALIFORNIA PROPOSITION 65: To the best of our knowledge this material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

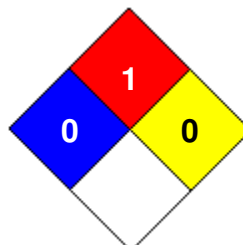
OSHA HAZARD COMM. RULE: Not hazardous

16. OTHER INFORMATION

HMIS RATING

HEALTH	□	1
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		B

NFPA CODES



NFPA STORAGE CLASSIFICATION: These ratings are part of a specific hazard communication program and

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should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

HMIS RATINGS NOTES: The HMIS rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in the SDS must be considered.