SAFETY DATA SHEET

GLYCOL ETHER PNP
Product ID: OR1609
Revised: 08-02-2016
Replaces: 10-22-2013

CHEMICAL DISTRIBUTION SOLUTIONS

1. IDENTIFICATION

Product Identifier:	GLYCOL ETHER PNP
Other Identifiers:	Propylene Glycol n-Propyl Ether; 2-Propanol, 1-Propoxy; Dipropylene Glycol Monopropyl Ether;
CAS Number:	MIXTURE
Recommended Use:	No data available.
Restrictions on Use:	No data available.

Chemical Distribution Solutions
1125 Oak St. Ste. 303
Conway, AR 72032
(501) 978-1111

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (800) 424-9300 CHEMTREC

2. HAZARD(S) IDENTIFICATION

GHS Classification(s): Serious Eye Damage/Eye Irritation Category 2A
Flammable Liquid Category 3

GHS Label Elements:

GHS Hazard Symbols:

Signal Word: Warning

Hazard Statements: Flammable liquid and vapour.
Causes serious eye irritation.

Precautionary Statements:

Prevention: Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
In case of fire: Use water fog, dry chemical, carbon dioxide, alcohol foam to extinguish.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: None known.

Percentage of Components with Unknown Acute Toxicity:

Oral:	100 %
Inhalation Vapor:	100 %
Inhalation Dust/Mist:	100 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms	CAS Number	% by Wt.
1-Propoxy-2-Propanol	1569-01-3	> 99.0 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses after the first 5 minutes and continue flushing.

Skin Contact: If on skin: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: Causes mild to severe irritation. Liquid or vapor may cause: corneal injury.

Skin Contact: May cause mild to moderate irritation. Prolonged contact may cause: slight irritation. redness. Repeated exposure may cause: irritation. drying. flaking. burns. May cause more severe response if skin is abraded (scratched or cut).

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts. Observations in animals include: anesthetic effects. narcotic effects.

Inhalation: May cause moderate to severe irritation. Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may irritate: upper respiratory tract. nose. throat. Observations in animals include: anesthetic effects. narcotic effects.

Ingestion: May cause mild to severe irritation. Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Observations in animals include: anesthetic effects. narcotic effects.

Indication of Immediate Medical Attention and Special Treatment Needed: Maintain adequate ventilation and oxygenation of the patient. If burn is present, treat as any thermal burn, after decontamination. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Water fog or fine spray. Dry chemical. Carbon dioxide. Foam. DO NOT USE: Direct water stream.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Spills on hot fibrous insulations may lead to lowering of the autoignition temperature possibly resulting in spontaneous combustion. Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source. Container may rupture from gas generation in a fire situation.

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition, which may be toxic and/or irritating. Carbon dioxide. Carbon monoxide.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers. Move containers from fire area if possible without hazard. Do not use direct water stream. May spread fire. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Burning liquids may be extinguished by dilution with water. Run-off from fire control may cause pollution.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Ground and bond all containers and handling equipment. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) 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 source of ignition. They may explode and cause injury or death. Use non-sparking tools and equipment.

Conditions for Safe Storage, Including any Incompatibilities: FLAMMABLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
No components found.	

ACGIH Exposure Guidelines:

Component	Limits
No components found.	

Engineering Controls: General room ventilation is required. Local exhaust ventilation may be necessary for some operations. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Wear a full-face respirator, if needed.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. NIOSH-Approved air-purifying respirator with: Organic vapor cartridge and particulate pre-filter. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber boots. Rubber apron. Full body suit. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Colorless.
Odor: Ether odor.
Odor Threshold: N.D.
pH: N.A.
Freezing Point (deg. F): N.D.
Melting Point (deg. F): < = -94
Initial Boiling Point or Boiling Range: 300 °F
Flash Point: 114 °F
Flash Point Method: TCC.
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid, gas): N.D.
Lower Explosion Limit: 1.3 % (V)
Upper Explosion Limit: ~ 10.6 % (V)
Vapor Pressure (mm Hg): 3.8 hPa
Vapor Density (air=1): 0.885 g/cm3
Specific Gravity or Relative Density: ~ 0.885 @ 20 C
Solubility in Water: Completely miscible
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: 2.7 mm2/s
% Volatile (wt%): N.D.
VOC (wt%): N.D.
VOC (lbs/gal): N.D.
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Product can oxidize at elevated temperatures.

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid static discharges. Avoid other ignition sources. Do not distill to dryness. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products: Aldehydes. Ketones. Organic acids.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Skin. Absorption. Inhalation. Ingestion.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: Causes mild to severe irritation. Liquid or vapor may cause: corneal injury.

Skin Contact: May cause mild to moderate irritation. Prolonged contact may cause: slight irritation. redness. Repeated exposure may cause: irritation. drying. flaking. burns. May cause more severe response if skin is abraded (scratched or cut).

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts. Observations in animals include: anesthetic effects. narcotic effects.

Inhalation: May cause moderate to severe irritation. Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may irritate: upper respiratory tract. nose. throat. Observations in animals include: anesthetic effects. narcotic effects.

Ingestion: May cause mild to severe irritation. Low toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Observations in animals include: anesthetic effects. narcotic effects.

Numerical Measures of Toxicity:

Component	Oral LD50	Dermal LD50	Inhalation LC50
1-Propoxy-2-Propanol	No Data	Rabbit: 3550 mg/kg	No Data

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Dermatitis.

Other: In animals, effects have been reported on the following organs: Kidney. Liver. Eye.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D001

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is

emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do NOT dump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN1993
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. CONTAINS (PROPYLENE GLYCOL N-PROPYL ETHER)
Hazard Class:	3
Packing Group:	III
Label Required:	FLAMMABLE

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	Yes	Yes	No	No

Regulated Components:

Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
No components found.							

***Prop 65 - May Contain the Following Trace Components:**
None known.

16. OTHER INFORMATION

Hazard Rating System
Health: 2*
Flammability: 2
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 2
Flammability: 2
Reactivity: 0
Special Hazard: None

SDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: CSH

Reason for Revision: New format.

Revised: 08-02-2016
Replaces: 10-22-2013

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for yourconsideration, investigation, and verification.