

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Glycol Ether PNP
CAS-No.	: 1569-01-3
Formula	: C6H14O2
Synonyms	: 2-Propanol, 1-Propoxy-, Propylene Glycol n-Propyl Ether, PNP, Propylene Glycol Monopropyl Ether

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Solvent
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1.3. Supplier

ECOLINK

2177 Flintstone Drive
Suite A
Tucker, GA 30084
770-621-8240 (t)
www.ecolink.com

1.4. Emergency telephone number

Emergency number	: INFOTRAC 800-535-5053
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 3	H226	Flammable liquid and vapor
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H226 - Flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

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P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	GHS-US classification
1-Propoxy-2-Propanol (Main constituent)	(CAS-No.) 1569-01-3	>99.0	Flam. Liq. 3, H226 Eye Irrit. 2A, H319 STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Consult a physician/ doctor if necessary. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Show this safety data sheet to the doctor in attendance.
First-aid measures after inhalation	: Remove to fresh air. Keep patient warm and at rest. In case of respiratory arrest, administer artificial respiration. In the event of unconsciousness, apnea or cardiac arrest (no pulse), apply cardiopulmonary resuscitation. Immediately seek medical attention.
First-aid measures after skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Flush with lukewarm water for 15 minutes. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses. If eye irritation persists, consult a specialist.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Center. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure). At high doses, causes irritation of the stomach.
Hazards	: May be harmful if swallowed and enters airways. May be harmful if swallowed. May be harmful in contact with skin. Causes serious eye irritation. May cause drowsiness or dizziness.

4.3. Immediate medical attention and special treatment, if necessary

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Small fire: Use dry chemicals, CO2, water spray or alcohol-resistant foam. Large fire: Use water spray, water fog or alcohol-resistant foam. Do not use straight streams.
Unsuitable extinguishing media	: Do not use solid water stream – may spread fire.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Fine sprays/ mist may be combustible at temperatures below normal flash point. When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Explosion hazard : DIRECT EXPLOSION HAZARD: Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD: may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
- Reactivity : Upon combustion: CO and CO₂ are formed. Reacts with (strong) oxidizers: (increased) risk of fire/explosion.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Cool tanks/ drum with water spray/ remove them into safety.
- Firefighting instructions : Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Face-shield. Protective clothing. See "Material-Handling" to select protective clothing.
- Emergency procedures : Evacuate personnel to safe areas. Keep people away from and unwind of spill/ leak. Use personal protective equipment. Ensure adequate ventilation. Eliminate all sources of ignition.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

- Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. Heating: dilute combustible gas/vapor with water curtain.
- Methods for cleaning up : Take up liquid spill into inert absorbent material, e.g.: sand/earth. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

- For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Industrial Use Only.
Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.

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Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature	: < 48 °C
Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. water/moisture.
Storage area	: Keep out of direct sunlight. Store in a dry area. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Unauthorized persons are not admitted. Aboveground. Detached building. Store only in a limited quantity. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.
Packaging materials	: SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Both local exhaust and general room ventilation are usually required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: viton.
GIVE GOOD RESISTANCE: No data available.
GIVE LESS RESISTANCE: neoprene. nitrile rubber. PVC.
GIVE POOR RESISTANCE: No data available

Hand protection:

Gloves – Chemical resistant gloves such as neoprene.

Eye protection:

Face shield – Chemical splash goggles and/ or face shield should be worn.

Skin and body protection:

Protective clothing – Use personal protective equipment (PPE) that is chemical resistant to the product and prevents skin contact. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. The PPE must be cleaned thoroughly when contaminated.

Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colorless
Odor	: Ether-like odor
Odor threshold	: No data available
pH	: No data available
Melting point / Freezing point	: < -70 °C at 1,013 hPa
Boiling point	: 149 °C at 1,013 hPa

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Flash point	: 46 °C at 1,013 hPa (760 mmHg) Method: (TCC)
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 3.8 hPa (20 °C)
Specific gravity / density	: 0.885 g/cm ³
Molecular mass	: 118.18 g/mol
Solubility	: Completely miscible
Log Pow	: 0.621 (20 °C)
Auto-ignition temperature	: 252 °C at 1,013 hPa
Decomposition temperature	: No data available
Viscosity, kinematic	: 2.7 mm ² /s at 25 °C
Viscosity, dynamic	: 2.8 mPa.s at 20 °C
Explosion limits	: 1.3 - 10.6 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content : 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

May react with oxygen to form peroxides.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

May react with oxygen to form peroxides.

10.4. Conditions to avoid

Heat, sparks, open flames, other ignition sources, and oxidizing conditions. Do not allow evaporation to dryness. Extended contact with air or oxygen. Ignition may occur at temperatures below those published in the literature as autoignition or ignition temperatures. The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified May be harmful if swallowed.
Acute toxicity (dermal)	: Not classified May be harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified Not irritating to the skin following short-term contact. Extensive and prolonged contact with skin may cause severe irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness. Exposure routes: Ingestion, Inhalation, skin contact
Specific target organ toxicity – repeated exposure	: Not classified

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Aspiration hazard	: Not classified May be harmful if swallowed and enters airways.
Viscosity, kinematic	: 2.7 mm ² /s at 25 °C
Symptoms/effects	: May cause drowsiness or dizziness.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Based on acute aquatic toxicity values, not classified.

Glycol Ether PNP (1569-01-3)	
LC50 fish 1	> 100 mg/l (LC50; ASTM E729-88; 96 h; Oncorhynchus mykiss; Static system; Fresh water; Experimental value)
EC50 Daphnia 1	> 100 mg/l (LC50; ASTM E729-88; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	3440 mg/l (EC50; EPA OTS 797.1050; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

Glycol Ether PNP (1569-01-3)	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.

12.3. Bioaccumulative potential

Glycol Ether PNP (1569-01-3)	
Log Pow	0.621 (Calculated; EPIWIN; 20 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN1993 Flammable liquids, n.o.s. (Propylene Glycol N-Propyl Ether), 3, III
UN-No.(DOT)	: UN1993
Proper Shipping Name (DOT)	: Flammable liquids, n.o.s. (Propylene Glycol N-Propyl Ether)
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	: III - Minor Danger

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Hazard labels (DOT) : 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.

B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Transport document description (IMDG) : UN 3271 , 3

UN-No. (IMDG) : 3271

Class (IMDG) : 3 - Flammable liquids

EmS-No. (1) : F-E

EmS-No. (2) : S-D

Air transport

Transport document description (IATA) : UN 3271 , 3, III

UN-No. (IATA) : 3271

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Glycol Ether PNP (1569-01-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes

Physical hazard - Flammable (gases, aerosols, liquids, or solids)

Health hazard - Serious eye damage or eye irritation

Health hazard - Specific target organ toxicity (single or repeated exposure)

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

Global Inventory Status

The ingredients in this product are compliant with the following chemical inventory requirements or exemptions.

CANADA

DSL Compliant

EU-Regulations

No additional information available

Country/ Region Inventory regulations

Australia AICS – Compliant

China IECSC – Compliant

Japan ENCS – Compliant

Korea KECI – Compliant

New Zealand NZIoC – Compliant

Philippines PICCS – Compliant

United States of America TSCA – Compliant

Taiwan TCSCA – Compliant

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 10/17/2018

Full text of H-phrases:

H226	Flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

NFPA health hazard

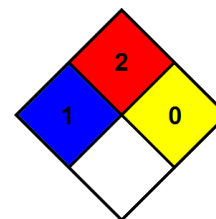
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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