Printing date 01/15/2018 Reviewed on 01/15/2018

1 Identification

· Product identifier

· Trade name: PNP

· Article number: 280-30-01

· CAS Number: 1569-01-3 · EC number:

216-372-4

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: OFI Testing Equipment Inc. 11302 Steeplecrest Dr. Houston, TX 77065 (877) 837-8683

· Information department: techservices@ofite.com

· Emergency telephone number:

INFOTRAC USA - CANADA: 1-800-535-5053

INTERNATIONAL: 1-352-323-3500

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

- · Label elements
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS02

GHS07

- · Signal word Warning
- · Hazard statements

Flammable liquid and vapor.

Causes serious eye irritation.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

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Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: Water spray.

In case of fire: Use for extinction: Alcohol resistant foam.

In case of fire: Use for extinction: Carbon dioxide.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2 Fire = 2Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

1569-01-3 Propylene Glycol n-Propyl Ether

- · Identification number(s)
- · EC number: 216-372-4

4 First-aid measures

- · Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: CO2. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- · Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.

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- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- · Breathing equipment: Not required.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid
Color: Colorless
Odor: Ether

· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: -70 °C (-94 °F)
Boiling point/Boiling range: 149.8 °C (301.6 °F)

• Flash point: $46 \, ^{\circ}C \, (114.8 \, ^{\circ}F)$

· Flammability (solid, gaseous): Not applicable.

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	(Contd. of page	
· Ignition temperature:		
Decomposition temperature:	Not determined.	
· Auto igniting:	Not determined.	
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.	
· Explosion limits:		
Lower:	1.3 Vol %	
Upper:	10.6 Vol %	
· Vapor pressure at 20 °C (68 °F):	2.3 hPa (1.7 mm Hg)	
· Density at 20 °C (68 °F):	0.8865 g/cm³ (7.39784 lbs/gal)	
· Relative density	Not determined.	
· Vapor density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Not determined.	
· Partition coefficient (n-octanol/wate	e r): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Other information	No further relevant information available.	

10 Stability and reactivity

- $\cdot \textit{Reactivity} \ \textit{No further relevant information available}.$
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.

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· OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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· **DOT**, **IMDG**, **IATA** UN1993

· UN proper shipping name

· DOT Flammable liquids, n.o.s. (Propylene Glycol n-Propyl Ether)

· IMDG, IATA FLAMMABLE LIQUID, N.O.S. (Propylene Glycol n-Propyl Ether)

- · Transport hazard class(es)
- $\cdot DOT$



· Class 3 Flammable liquids

· Label

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Trade name: PNP

· IMDG, IATA

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3 Flammable liquids · Class · Label · Packing group · DOT, IMDG, IATA III· Environmental hazards: · Marine pollutant: No Warning: Flammable liquids · Special precautions for user · Danger code (Kemler): · EMS Number: *F-E*,<u>*S-E*</u> · Stowage Category Α · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: $\cdot DOT$ · Quantity limitations On passenger aircraft/rail: 60 L

Quantity limitations On passenger aircraft/rail: 60 L
On cargo aircraft only: 220 L

· Remarks: Not regulated

· IMDG

Limited quantities (LQ)
 Excepted quantities (EQ)
 5L
 Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

• Remarks: Not regulated

 \cdot IATA

· Remarks: Not regulated

• UN "Model Regulation": UN 1993 FLAMMABLE LIQUIDS, N.O.S. (PROPYLENE GLYCOL N-PROPYL ETHER), 3, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act):

Propylene Glycol n-Propyl Ether

- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.

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- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS02

- · Signal word Warning
- · Hazard statements

Flammable liquid and vapor.

Causes serious eye irritation.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

 ${\it If skin irritation occurs: Get medical advice/attention.}$

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use for extinction: Water spray.

In case of fire: Use for extinction: Alcohol resistant foam.

In case of fire: Use for extinction: Carbon dioxide.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environment protection department.
- · Contact:
- · Date of preparation / last revision

Revision 1.0, 12-16-2014: revised DOT from UN3271, Ethers, n.o.s. (1-propoxypropan-20l) 3, PG III to flammable liquid n.o.s. (1-propoxypropan-20l), 3, PG III. STN

Revision 2.0, 02-09-2015: revised to add additional Precautionary statements and revised one Hazard Statement. STN

Revision 2.1, 02-10-2015: made further modifications to remove a hazard phrase and removed additional precautonary statements. added additional fire statements. STN

Revision 1.1, 02-06-2015: Revised DOT to "flammable liquid n.o.s. (Propylene Glycol n-Propyl Ether), 3, PG III. STN

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Revision 2.2, 05-07-2015: corrected emergency and information contacts. STN

01-15-2018: review SDS for accuracy. STN Creation date for SDS 06-11-2014. STN

01/15/2018 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flam. Liq. 3: Flammable liquids - Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A