Printing date 02/06/2015 Reviewed on 06/11/2014

1 Identification

· Product identifier

· Trade name: PNP

· Article number: 280-30

• 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:

tech services @o fite.com

Product safety department

· Emergency telephone number:

Chemtrec: 800-424-9300 Canutec: 613-996-6666

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory 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 vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· Precautionary statements

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

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

Avoid breathing dust/fume/gas/mist/vapors/spray

(Contd. on page 2)

Printing date 02/06/2015 Reviewed on 06/11/2014

Trade name: PNP

(Contd. of page 1)

IF ON SKIN (or hair): Remove/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.

Specific treatment (see on this label).

Store locked up.

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

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



Health = 2Fire = 2Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 2 Fire = 2

- · 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
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult 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.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · 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 Not required.
- · Environmental precautions: No special measures required.

(Contd. on page 3)

Printing date 02/06/2015 Reviewed on 06/11/2014

Trade name: PNP

(Contd. of page 2)

· Methods and material for containment and cleaning up:

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

· 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.

7 Handling and storage

- Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: No special measures required.
- · 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: None.
- \cdot *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.
- $\cdot \textit{Additional information:} \ \textit{The lists that were valid during the creation were used as basis.}$
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Breathing equipment: Not required.
- · Protection of hands:

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: Goggles recommended during refilling.

9 Physical and chemical properties

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

 Form:
 Fluid

 Color:
 Colorless

 ⋅ Odor:
 Ether

· Odour threshold: Not determined.

· pH-value: Not determined.

(Contd. on page 4)

Printing date 02/06/2015 Reviewed on 06/11/2014

Trade name: PNP

	(Contd. of page
Change in condition	
Melting point/Melting range:	-70 °C (-94 °F)
Boiling point/Boiling range:	149.8 °C (302 °F)
Flash point:	46 °C (115 °F)
Flammability (solid, gaseous):	Not applicable.
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 (2 mm Hg)
Density at 20 °C (68 °F):	0.8865 g/cm³ (7.398 lbs/gal)
Relative density	Not determined.
Vapour 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

- · Reactivity
- · 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:
- · LD/LC50 values that are relevant for classification:

 Oral
 LD50
 >2000 mg/kg (rat)

 Dermal
 LD50
 >2000 mg/kg (rabbit)

- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.

(Contd. on page 5)

Printing date 02/06/2015 Reviewed on 06/11/2014

Trade name: PNP

(Contd. of page 4)

- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · 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.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- · 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.

14 Transport information

UN-	Vum	her
O 1 1 -1	1 11111	\boldsymbol{v}

· 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

· IMDG, IATA



· Class 3 Flammable liquids

(Contd. on page 6)

Reviewed on 06/11/2014 Printing date 02/06/2015

Trade name: PNP

	(Contd. of page
Label	3
Packing group DOT, IMDG, IATA	III
Environmental hazards: Marine pollutant:	No
Special precautions for user Danger code (Kemler): EMS Number:	Warning: Flammable liquids 3 F-E, <u>S-E</u>
Transport in bulk according to Annex I MARPOL73/78 and the IBC Code	I of Not applicable.
Transport/Additional information:	
DOT Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
Remarks:	Not regulated
IMDG Limited quantities (LQ) Excepted quantities (EQ) Remarks:	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml Not regulated
IATA Remarks:	Not regulated
UN "Model Regulation":	UN1993, Flammable liquids, n.o.s. (Propylene Glycol n-Prop Ether), 3, III

15 Regulatory information

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





· Signal word Warning

(Contd. on page 7)

Printing date 02/06/2015 Reviewed on 06/11/2014

Trade name: PNP

(Contd. of page 6)

· Hazard statements

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· Precautionary statements

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

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

Avoid breathing dust/fume/gas/mist/vapors/spray

IF ON SKIN (or hair): Remove/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.

Specific treatment (see on this label).

Store locked up.

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: Mr. Nelson
- · Date of preparation / last revision

Revision 0.1, 02-06-2015: Revised DOT to "flammable liquid n.o.s. (Propylene Glycol n-Propyl Ether), 3, PG III. STN

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

Creation date for SDS 10-06-2014. STN

02/06/2015 / -

· 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

USA