

# 1. IDENTIFICATION

Name:	Glycol Ether PnP
Synonyms:	1- propoxy-2-propanol, n-propoxypropanol, alpha-propylene glycol n-propyl ether; 1-propoxy-2-hydroxypropane, propylene glycol n-propyl ether; PnP & others
Product Uses:	Solvent in coatings and hard surface cleaners
Supplier Identifier:	Megaloid Laboratories Limited 5515 North Service Road # 306 Burlington, ON L7L 6G4

EMERGENCY INFORMATION: Call CHEMTREC - (800) 424-9300 (CCN# 693764)

# 2. HAZARD INDENTIFICATION

GHS Class (category)	Flammable (3)	Eye irritant	
Signal Word	WARNING		
	Flammable	Causes	
Hazard	liquid and	serious eye	
Statements	vapour	irritation	
	(H226)	(H319)	
Hazardous Pictograms			
Hazardous Pictograms			

**GHS Precautionary Statements for Labelling** 

#### Prevention:

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, and/or lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection and/or face protection.
Response:	
P303	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P337	If eye irritation persists: Get medical advice and/or attention.
P378	In case of fire use alcohol-resistant foam to extinguish.
P305, P351, P338	If in eyes, rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Storage:	
P403	Store in a well-ventilated place.
Disposal:	
P501	Dispose of contents and/or container to an approved waste disposal plant.

# 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	CAS No.	Weight %	Other Identifiers
Propylene Glycol mono- n-Propyl Ether	1569-01-3	100 %	EC# 250-069-8

# 4. FIRST-AID MEASURES

## Inhalation

Remove from contaminated area promptly. *CAUTION: Rescuer must not endanger himself!* If breathing stops, administer artificial respiration and seek medical aid promptly.

## **Skin Contact**

Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.

#### Eye Contact

Wash eyes with plenty of water, holding eyelids open. Seek medical assistance if there is any irritation.

#### Ingestion

Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

### Most important symptoms and effects, both acute and delayed

High doses may cause fatigue, loss of concentration, dizziness. Causes eye irritation May be harmful if swallowed May be harmful if swallowed and enters airways May irritate skin

#### **Notes to physician** Treat symptomatically

Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.

# 5. FIRE FIGHTING MEASURES

#### Suitable Extinguishing Media

Use water spray, water fog or alcohol-resistant foam.

#### **Unsuitable Extinguishing Media**

Do not use solid water stream

#### **Specific Hazards Arising from the Product**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion Products carbon monoxide, nitrogen oxides, part oxidised hydrocarbon fragments (including formaldehyde, acetaldehyde & other irritating aldehydes)

#### **Special Protective Equipment and Precautions for Fire-fighters**

Alcohol resistant foam, dry chemical, water fog or spray; firefighters must wear SCBA

# 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures** Dyke to control spillage and prevent environmental contamination

### Methods and materials for containment and cleaning up

Recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for recycling or disposal

## 7. HANDLING & STORAGE

#### **Precautions for Safe Handling**

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents. Avoid generating or breathing product vapour or mist. If vapour or mist form in use, install adequate ventilation to clear workplace air. Never cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin & wash work clothes frequently. An eye bath must be available near the workplace.

#### **Conditions for Safe Storage**

This product may react with oxygen in the air to form explosive or flammable peroxides. Ensure that containers are full & tightly sealed. If prolonged storage is anticipated, flush container headspace with dry nitrogen gas. Empty containers may contain a flammable / explosive vapour.

# 8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWAEV AGGIH TLV OSHA PEL	Not listed Not listed Not listed	Ontario STEV ACGIH STEL OSHA STEL	Not listed Not listed Not listed
Ventilation	mechanical ventilation may be re handling procedures	quired to control airborn	e titre; depending on
Hands	no special protective gloves requ confirm suitability with supplier	ired; butyl or "Viton" glov	ves are resistant –
Eyes	safety glasses with side shields -	- always protect the eyes	3
Clothing	no special gloves required		

# 9. PHYSICAL & CHEMICAL PROPERTIES

Odour & Appearance	clear, colourless, hygroscopic liquid with mild ether odour
Odour threshold	not known
рН	none – (does not liberate hydrogen ions when dissolved)

Melting point/Freezing point	-80°C / -112°F; also -70°C / -94°F <sup>1</sup>
Initial boiling point/boiling range	149°C / 300°F <sup>1</sup>
Flash point	46°C / 115°F (Setaflash, closed cup)1, 48°C / 115°F (closed cup)
Evaporation rate (Butyl Acetate = 1)	0.22
Flammability (solid; gas)	no data available
Lower flammable/explosive limit	1.1%
Upper flammable/explosive limit	15%
Vapour pressure	1.7mmHg / 0.23kPa (20°C / 68°F); 2.85mmHg / 0.38kPa (25°C / 77°F) <sup>1</sup>
Vapour density (air = 1)	4.1
Relative density (water =1)	0.886 (20/20°C)
Water Solubility	Complete
Log PO/W (Octanol/H2O partition)	0.621 <sup>1</sup> , also 0.49 <sup>1</sup>
Auto ignition temperature	252°C / 486°F <sup>1</sup>
Decomposition temperature	not known
Viscosity	2.4 centipoise (25°C / 77°F) <sup>1</sup>
Conversion Factor	1ppm = 4.84mg/m <sup>3</sup>
Molecular Weight	118 grams per mole

# 10. STABILITY AND REACTIVITY

#### Reactivity

<u>Dangerously Reactive with</u> - strong oxidising agents may cause fire; may react violently with aluminium chloride or boron trichloride releasing hydrogen chloride

<u>Also Reactive with</u> - inorganic hypochlorites to form explosive organic hypochlorites and/or chloroform (toxic); reacts with epoxides; reacts with halogen gases & alkali metals to release hydrogen and strong alkali; reacts with strong acids, aldehydes & some ketones to cause heating

## **Chemical Stability**

Stable under recommended storage conditions

### **Possibility of Hazardous Reactions**

Polymerization will not occur.

**Conditions to avoid** Do not distill to dryness.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products potentially explosive peroxides

Sensitive to Mechanical Impact No

# **11. TOXICOLOGICAL INFORMATION**

	Acute Toxicity
Skin Contact	mildly irritating <i>if contact is not prolonged</i> <sup>1</sup>
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	moderately & severely irritating <sup>1</sup>
Inhalation	high concentrations <i>(saturated vapour)</i> may irritate & cause headache, dizziness, nausea, etc.
Ingestion	may cause headache, nausea, vomiting – not a route of industrial exposure
LD <sub>50</sub> (oral)	2875mg/kg (rat), (♀)2500 & (♂)4350mg/kg (rat), 3410mg/kg (rat)¹
LD <sub>50</sub> (skin)	2805, 3535 & 4050¹mg/kg (rabbit) (♂)3800 & (♀)4350mg/kg (rabbit)
LC <sub>50</sub> (inhalation)	>2450ppm (rat) – <i>no mortality seen</i>

# 11. TOXICITY, CONTINUED

General - prolonged exposure may cause dermatitis & inflamed (red) skin

Sensitising - not a sensitiser in humans or animals<sup>1</sup>

Carcinogen/Tumorigen - not considered a tumorigen or a carcinogen in humans or animals

**Reproductive Effect** - no known effect in humans, *teratogen in rats (but not rabbits) at doses causing maternal toxicity (below)* 

Mutagen - no known effect on humans or animals<sup>1</sup>

### Synergistic with - not known

NOAEL (rat) - 300mg/kg/day (maternal), 1000mg/kg/day (reproduction)<sup>1</sup>

NOAEL (rat) - 750ppm (maternal), 1500ppm (developmental)<sup>1</sup>

# **12. ECOLOGICAL INFORMATION**

Bioaccumulation	not a bioaccumulator
Biodegradation	biodegrades readily in the presence of oxygen; 91% in 27 days <sup>1</sup>
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated $\frac{1}{2}$ -life in air is 15 hours
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	
LC <sub>50</sub> (Fish, 96hr)	above 100mg/litre (Oncorhynchus mykiss) <sup>1</sup>
EC <sub>50</sub> (Crustacea, 48hr)	above 100mg/litre (Daphnia magna) <sup>1</sup>
EC <sub>50</sub> (Algae)	3440mg/litre (Pseudokirchnerella subcapitata) <sup>1</sup>
EC <sub>10</sub> (Bacteria)	no data available

## 13. DISPOSAL

### Waste Disposal

**Do not flush to sewer,** recycle solvent if possible, local regulations may permit disposal in sanitary landfill, may be incinerated in approved facility after mixing with a suitable flammable waste

### Containers

**Drums** should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.

Pails must be vented and thoroughly dried prior to crushing and recycling.

**IBCs** (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs).

Steel containers must be inspected, pressure tested & recertified every 5 years.

## Never cut, drill, weld or grind on or near this container, even if empty

# 14. TRANSPORT INFORMATION

Canada TDG	UN / PIN #	UN1993	
AND	Shipping Name	FLAMMABLE LIQUID, N.O.S.(1- Propoxy-2- propanol)	3
U.S.A. 49 CFR	Class & Packing Group	3, III	•
Marine Pollutant	No	t a marine pollutan	t
ERAP Required (CA		No	
only)			
Emergency Response		128	
Guide No.			
Reportable Quantity		No	
(RQ – USA only)			

# **15. REGULATORY INFORMATION**

Canada DSL	On Inventory
U.S.A. TSCA	On Inventory
Europe EINECS	On Inventory

# **16. OTHER INFORMATION**

NFPA RATINGHealth2Flammability2Instability0	NFPA RATING	G Health 2	Flammability	2	Instability	0
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Data from **RTECS**, **HSDB** (Haz. Substance Data Base), **Cheminfo** (CCOHS), **IUCLID** Datasheets (ESIS – European Chem. Substance Info. System), & others.

(1) European Chemicals Agency (EChA) dossier for 1-propoxypropan-2-ol: <u>http://echa.europa.eu/registration-dossier/-/registered-dossier/2020</u>

Prepared for	Megaloid Laboratories	by	Rob Cangiano
Preparation Date:	May 2002	-	

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Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).
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