



Safety Data Sheet

1. PRODUCT IDENTIFICATION

Name	Glycol Ether DPnP
Synonyms	1-(2-propoxy-1-methylethoxy)-2-propanol; dipropylene glycol <i>normal</i> -propyl ether
CAS#	29911-27-1
Europe EC#	249-949-4
Product Uses	solvent

2. HAZARDS

Quick Guide: combustible liquid; may injure eyes if not washed promptly

Canada – WHMIS

Key:

Substance

U.S.A. – HMIS

Key:

B 3

B 2 – Flash Point <38°C, **B 3** – Flash Point >38°C & <93°C
D 1 – Immediately Toxic, **D 2** – Chronic Toxicity
C – Oxidising Substance, **E** – Corrosive, **F** – Reactive



Health – 2, Fire – 2, Reactivity – 0

0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

3. COMPOSITION

	%	TWAEV / TLV mg/m ³	LD ₅₀ (mg/kg) ORAL	LD ₅₀ (mg/kg) SKIN	LC ₅₀ ppm INHALATION
Dipropylene Glycol n-Propyl Ether	100%	not listed	1475	5220	not known

4. FIRST AID

SKIN:	Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.
INHALATION:	Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.
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.

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 & FLAMMABILITY

Flash Point	88°C / 190°F (Setaflash, closed cup)
Autoignition Temperature	205°C / 401°F
Flammable Limits	0.7%, upper limit not known
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	foam, dry chemical, water fog or spray to cool & dilute, product floats on water – water jet spreads flames; firefighters must wear SCBA
Static Charge Accumulation	probably cannot accumulate a static charge on agitation or pumping

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6. ACCIDENTAL RELEASE MEASURES

Leak Precaution dyke to control spillage and prevent environmental contamination
 Handling Spill ventilate contaminated area; 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

Store in a cool, dry environment, away from sources of ignition, heat, strong acids and oxidising agents.

This product may react with oxygen in air to form explosive or flammable peroxides. ***Never distil to dryness.*** Ensure that containers are full and tightly sealed. If prolonged storage of a part container is anticipated, flush headspace with dry nitrogen gas prior to sealing. Empty containers may contain a flammable / explosive vapour. Always ensure that containers, whether empty or full, are tightly sealed unless in use.

Never cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower must be available near the workplace.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWAEV	not listed
ACGIH TLV	not listed
OSHA PEL	not listed
Ventilation	no special ventilation required
Hands	no special protective gloves required; neoprene gloves may be worn
Eyes	safety glasses with side shields – <i>always protect the eyes</i>
Clothing	no special protective clothing required

9. PHYSICAL PROPERTIES

Odour & Appearance	clear, colourless liquid with mild ether odour
Odour Threshold	not known
Vapour Pressure	0.05mmHg / 0.0067kPa (20°C / 68°F); also 0.12mmHg / 0.017kPa (25°C / 77°F)*
Evaporation Rate (<i>Butyl Acetate = 1</i>)	0.013
Vapour Density (air = 1)	6
Boiling Range	212-213°C / 414-416°F
Freezing Point	-34°C / -30°F
Specific Gravity	0.922 (25/25°C)
Water Solubility	180g/litre (20°C / 68°F); also given as 150g/litre*
Also soluble in	most organic solvents
Viscosity	11centipoise (25°C / 77°F)
pH	none – (<i>does not liberate hydrogen ions when dissolved</i>)
Conversion Factor	1ppm = ~7mg/m ³
Molecular Weight	176grams per mole

* see reference in Part 12

10. REACTIVITY

Dangerously Reactive With	strong oxidising agents
Also Reactive With	strong acids, strong alkalies
Stability	stable; will not polymerize
Decomposes in Presence of	oxygen (air) – <i>gradually</i>
Decomposition Products	apart from Hazardous Combustion Products, forms explosive peroxides on prolonged storage
Sensitive to Mechanical Impact	no

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11. TOXICITY

Effects, Acute Exposure

Skin Contact	little or no effect
Skin Absorption	yes, but no toxic effects likely by this route
Eye Contact	slightly irritating; may injure if contact is prolonged
Inhalation	little to no effect due to low vapour pressure at ambient temperatures
Ingestion	not known – may cause stomach discomfort and diarrhoea

Effects, Chronic Exposure

General	prolonged exposure may cause drying of skin, leading to dermatitis
Sensitising	not a sensitiser in humans or animals
Carcinogen/Tumorigen	not considered a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect in humans or animals
Mutagen	no known effect on humans or animals
Synergistic With	not known
LD ₅₀ (oral)	1475mg/kg (rat), 1490mg/kg (<i>Dupont</i>), >2000mg/kg (<i>Lyondell</i>), 2000-2500mg/kg (<i>Dow</i>)
LD ₅₀ (skin)	5340mg/kg (rabbit), 5220mg/kg (<i>Dupont</i>), >2000mg/kg (<i>Lyondell & Dow</i>)
LC ₅₀ (inhalation)	not known

12. ECOLOGICAL INFORMATION

Bioaccumulation	not a bioaccumulator
Biodegradation	biodegrades readily & rapidly in the presence of oxygen; 92% in 28 days*
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air is 2.7 hours
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	
LC ₅₀ (Fish, 96hr)	>100mg/litre (<i>Oncorhynchus mykiss</i>), 10,000mg/litre (<i>Pimephmelas promelas</i>)*
EC ₅₀ (Crustacea, 48hr)	1920mg/litre (<i>Daphnia magna</i>)*, >1000mg/litre (<i>Crangon crangon</i>)*
EC ₅₀ (Algae, 96hr)	>969*mg/litre (<i>Selenastrum Capricornutum</i>)
EC ₅₀ (Bacteria)	4168mg/litre (<i>Pseudomonas putida</i>)*

* An examination of the physical properties, fate, ecotoxicity and potential environmental risks for a series of propylene glycol ethers, Staples & Davis, "Chemosphere" 49, 2002, p61-73:

<http://144.206.159.178/FT/166/72326/1235680.pdf>

13. DISPOSAL

Waste Disposal	do not flush to sewer , recycle solvent if possible, if local regulations permit, may be put in sanitary landfill, may be incinerated in approved facility
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

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14. TRANSPORT CLASSIFICATION

Canada TDG	PIN	UN- not regulated for transport	
	Shipping Name	not regulated for transport	
	Class & Packing Group	not regulated for transport	
U.S.A. 49 CFR	PIN	NA-1993	
	Shipping Name	COMBUSTIBLE LIQUIDS N.O.S.	
		(dipropylene glycol n-propyl ether)	
	Class & Packing Group	3, combustible liquid	<i>Safety Mark</i>
Marine Pollutant		not a marine pollutant	<i>USA Only →</i>
ERAP Required		NO	



EMERGENCY INFORMATION

Canada	Call CANUTEC (collect)	(613) 996-6666
U.S.A.	Call CHEMTREC	(800) 424-9300

15. REGULATIONS

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory
Europe Classification	<i>not classified hazardous in Europe</i>

16. OTHER INFORMATION

Prepared for Megaloid Laboratories by Peter Bursztyn, (705) 734-1577

Data from **RTECS**, **HSDB** (Haz. Substance Data Base), **Cheminfo** (CCOHS), **IUCLID** Datasheets (ESIS – European Chem. Substance Info. System), & others.

Preparation Date: **January 2004** Revision Date: **February 2007, February 2010, February 2013**

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