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# 1. IDENTIFICATION

Name: Tripropylene Glycol

**Synonyms:** propanol, [(1-methyl-1,2-ethanediyl)bis(oxy)]bis-; 2-(2-(2-

hydroxypropoxy)-1-propanol

**Product Uses:** brake & hydraulic fluids, resin mfg., plasticiser; solvent in pharmaceuticals,

insecticides

**Supplier** Megaloid Laboratories Limited **Identifier:** 5515 North Service Road # 306

Burlington, ON L7L 6G4

**EMERGENCY INFORMATION: Call CHEMTREC - (800) 424-9300** 

(CCN# 693764)

# 2. HAZARD INDENTIFICATION

GHS Class (category)	NOT HAZARDOUS	
Signal Word	None	
Hazard Statements	None	

GHS Precautionary Statements for Labelling - NONE			

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	CAS No.	%	Other Identifiers
Tripropylene Glycol	24800-44-0	100	EC # 246-466-0

#### 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, dizziness, depression, loss of concentration. This product is of low acute toxicity. May cause irritation of the eyes and 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 non-toxic 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

Water fog or fine spray. Dry chemical fire extinguishers.

### **Unsuitable Extinguishing Media**

Do not use solid water stream. May spread fire.

### **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. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

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

Firefighters must wear SCBA

# **Static Charge Accumulation**

Cannot accumulate a static charge

#### 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment

# Methods and materials for containment and cleaning up

Dyke to control spillage and prevent environmental contamination. 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**

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

# **Conditions for Safe Storage**

Tripropylene glycol absorbs moisture from the air (hygroscopic). To preserve quality, store in a dry environment, away from open flame & oxidising agents.

## 8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWAEV	Not listed	Ontario STEV	Not listed
AGGIH TLV	Not listed	ACGIH STEL	Not listed
OSHA PEL	Not listed	OSHA STEL	Not listed

Ventilation	if product mist forms in use, install adequate mechanical ventilation to clear workplace air
Hands	no special protective gloves required
Eyes	safety glasses with side shields – always protect the eyes
Clothing	no special protective clothing required

# 9. PHYSICAL & CHEMICAL PROPERTIES

Odour & Appearance	clear, colourless, sweet, hygroscopic, viscous liquid with no odour
Odour threshold	not known – odourless
рН	none – (does not liberate hydrogen ions when dissolved)

Melting point/Freezing point -30°C / -22°F1, also -47°C / -53°F1 – super cools readily Initial boiling point/boiling 263-280°C / 505-536°F, also 270°C / 518°F1 Flash point 141°C to 149°C / 285°F to 300°F (closed cup)<sup>1</sup> **Evaporation rate** (Butyl Acetate = 1) not known — not considered volatile Flammability (solid; gas) no date available Lower flammable/explosive no date available Upper flammable/explosive no date available limit 0.00196mmHg / <0.00026kPa (20°C / 68°F)<sup>1</sup>; 1mmHg / Vapour pressure 0.13kPa (96°C / 200°F) **Vapour density** (air = 1) 6.6 Relative density (water =1) 1.0177 - 1.0277 at 20 °C (68 °F) / 20 °C ASTM D4052 Water Solubility 100 % at 20 °C (68 °F) Literature Log PO/W (Octanol/H2O 0.418<sup>1</sup>, also -0.38<sup>1</sup> partition) 232°C to 260°C / 450°F to 500°F1 Auto ignition temperature not known – no decomposition expected below the auto **Decomposition temperature** ignition temperature 107 centipoise (25°C / 77°F), also 78 & 86centipoise (20°C)<sup>1</sup> Viscosity **Conversion Factor** 128 ppm = 1mg/litre Molecular Weight 192 grams per mole

# 10. STABILITY AND REACTIVITY

#### Reactivity

Strong oxidising agents

# **Chemical Stability**

Stable; will not polymerize

#### **Possibility of Hazardous Reactions**

Polymerization will not occur.

#### **Conditions to avoid**

High temperatures, oxidizing conditions.

### Incompatible materials

Strong oxidizing agents. Strong acids.

# **Hazardous decomposition products**

None apart from Hazardous Combustion Products

### **Sensitive to Mechanical Impact**

No

# 11. TOXICOLOGICAL INFORMATION

	Acute Toxicity		
Skin Contact	"not irritating" <sup>1</sup>		
Skin Absorption	slight; no toxic effects possible by this route		
Eye Contact	"not irritating" <sup>1</sup> , will not damage eyes		
Inhalation	unlikely route of entry for a viscous product with low vapour pressure		
Ingestion	unknown; virtually without effect – not a route of industrial exposure		
LD <sub>50</sub> (oral)	11,500 mg/kg (rat) <sup>1</sup> , >2000mg/kg (rat) – no mortality or symptoms reported at this dose <sup>1</sup>		
LD <sub>50</sub> (skin)	>16,320 mg/kg (rabbit) – no symptoms of toxicity at this dose <sup>1</sup>		
LC <sub>50</sub> (inhalation)	>>10,600 ppm (rat) – no symptoms of toxicity at this dose <sup>1</sup>		

# 11. TOXICITY, CONTINUED

### General

Little effect; 1000mg/kg/day elevated liver weight in rats – not relevant to industrial exposure

# Sensitising

Not a sensitiser<sup>1</sup>

# Carcinogen/Tumorigen

Not considered a tumorigen or a carcinogen in humans or animals<sup>1</sup>

# **Reproductive Effect**

No known effect in humans or animals<sup>1</sup>

### Mutagen/Teratogen

No known effect in humans or animals1

# Synergistic with

Not known

### 12. ECOLOGICAL INFORMATION

Bioaccumulation	Not a bioaccumulator		
Biodegradation	84% in 28 days (DIN 38312 L 25 – Zahn-Wellens test); 46% in 64 days (sea water – OECD 306); 60%, 82% & 92% in 28 days (sewage sludge) <sup>1</sup> – biodegradation is not very rapid		
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; $\frac{1}{2}$ -life 3-14 hours, also $\frac{1}{2}$ -life is $2.3hr^1$		
Mobility in soil, water	water soluble; moves readily in soil and water		
Aquatic Toxicity			
LC <sub>0</sub> (Fish, 96hr)	>10,000mg/litre (Brachydanio rerio) – an EC0 – no mortality,		
LC <sub>50</sub> (Fish, 96hr)	>1000mg/litre (Oryzias latipes) <sup>1</sup>		
LC <sub>50</sub> (Crustacea, 96hr)	>10,000mg/litre (Daphnia magna), >1000mg/litre (Daphnia magna, 24hr)¹		
EC <sub>10</sub> (Algae, 72hr)	>5000mg/litre (Scenedesmus subspicatis) – this is an EC10, not an EC50 – very little effect		
EC <sub>50</sub> (Algae, 72hr)	>1000mg/litre (Pseudokirchnerella subcapitata)¹		
EC <sub>50</sub> (Bacteria, 24hr)	>50,000mg/litre ("activated sludge")		
EC <sub>20</sub> (Bacteria, 3hr)	>1000mg/litre ("activated sludge") <sup>1</sup>		

### 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 #	Not regulated for transport
AND	Shipping Name	Not regulated for transport
U.S.A. 49 CFR	Class & Packing Group	Not regulated for transport

Marine Pollutant	Not a marine pollutant	
ERAP Required (CA	No	
only)		
<b>Emergency Response</b>	No	
Guide No.		
Reportable Quantity	None	
(RQ – USA only)		

# 15. REGULATORY INFORMATION

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

# 16. OTHER INFORMATION

NFPA RATING	Health 1	Flammability 1	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 [(methylethylene)bis(oxy)]dipropanol: https://echa.europa.eu/registration-dossier/-/registered-dossier/14788/1

Prepared for	Megaloid Laboratories	by	Rob Cangiano
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Key to	ACGIH® = American Conference of Governmental Industrial Hygienists		
Abbreviations	ations AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Da		
	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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