

# Material Safety Data for: Glycol Ether DPM Acetate

## 1. PRODUCT IDENTIFICATION

<b>Name</b>	dipropylene glycol methyl ether acetate
<b>Synonyms</b>	1-methyl-(1-propoxy)-2-propanol acetate, DPM Acetate
<b>CAS#</b>	88917-22-0
<b>Europe EC#</b>	406-880-6
<b>Product Uses</b>	solvent in coatings, inks & for resins; coalescing agent in water-based paints

## 2. INGREDIENTS

	%	TWAEV / TLV ppm / mg/m <sup>3</sup>	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
Dipropylene Glycol Methyl Ether Acetate	100%	not listed	>2930	>5000	>735

## 3. (a) HAZARDS SUMMARY

### Hazards, Quick Guide:

#### Canada – WHMIS

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

#### U.S.A. – HMIS

Key:

#### Health – 0, Fire – 1, Reactivity – 0

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

## 3. (b) HAZARDS – TOXICITY

### Effects, Acute Exposure

Skin Contact	little to no effect
Skin Absorption	yes; no toxic effects likely by this route
Eye Contact	may be slightly irritating
Inhalation	little to no effect – partly due to low vapour pressure; product mist may irritate
Ingestion	not known – low toxicity expected

### Effects, Chronic Exposure

General	prolonged exposure may cause 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 <sub>50</sub> (oral)	2930-9760mg/kg (rat)
LD <sub>50</sub> (skin)	>5700mg/kg (rabbit) – no mortality at this dose
LC <sub>50</sub> (inhalation)	735ppm (rat)

**Please ensure that this MSDS is given to, and explained to people using this product.**

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**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. PHYSICAL PROPERTIES**

Odour & Appearance	clear, colourless, hygroscopic liquid with slight sweetish ether odour
Odour Threshold	not known
Vapour Pressure	0.084mmHg / 0.011kPa (20°C / 68°F)
Evaporation Rate ( <i>Butyl Acetate = 1</i> )	not known – <i>similar to kerosene</i>
Vapour Density (air = 1)	6.5
Boiling Range	205-217°C / 401-423°F
Freezing Point	-25°C / -13°F
Specific Gravity	0.970 (20/20°C)
Water Solubility	120grams/litre (20°C / 68°F)
Also soluble in	most organic solvents
Viscosity	2.2centipoise (25°C / 77°F)
pH	none – ( <i>does not liberate hydrogen ions when dissolved</i> )
Conversion Factor	1ppm = 7.76mg/m <sup>3</sup>
Molecular Weight	190grams per mole

**6. FLAMMABILITY & FIRE FIGHTING**

Flash Point	86°C / 186°F (closed cup)
Autoignition Temperature	321°C / 610°F
Flammable Limits	1.2% – 5.4% @ 150°C
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments including formaldehyde, acetaldehyde plus other toxic & irritating compounds
Fire Fighting Precautions	foam, dry chemical, water fog or spray; firefighters must wear SCBA
Static Charge Accumulation	cannot accumulate a static charge on agitation or pumping

**7. STABILITY / REACTIVITY**

Dangerously Reactive With hydrides,	strong oxidising agents; alkali metals ( <i>eg: Na</i> ), alkaline earth metals ( <i>eg: Ca</i> ), metal halogens ( <i>chlorine etc</i> ); hypochlorites – may form explosive alkyl hypochlorites
Also Reactive With	strong acids ( <i>flammable products</i> ); strong alkalies ( <i>generate heat</i> ); attacks & softens PVC ( <i>polyvinyl chloride</i> )
Stability	stable; will not polymerize
Decomposes in Presence of	reacts gradually with oxygen (air); accelerated in presence of copper & its alloys
Decomposition Products	apart from Hazardous Combustion Products, potentially explosive peroxides
Sensitive to Mechanical Impact	no

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## 8. PROTECTIVE EQUIPMENT / EXPOSURE CONTROL

ACGIH TLV	not listed
OSHA PEL	not listed
STEL	not listed
Ventilation	general ventilation adequate – no special ventilation is required
Hands	protective gloves not required; nitrile or neoprene gloves may be used – <i>consult supplier to confirm suitability</i>
Eyes	safety glasses with side shields – <i>always protect the eyes</i>
Clothing	no special protective clothing required

## 9. HANDLING & STORAGE

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents and substances listed in Part 7. Prolonged storage in mild steel may cause slight discolouration. Explosive peroxides may form on prolonged storage in contact with the oxygen in air. These peroxides concentrate on distillation and may explode if distillation continues to dryness. ***Never distil this product to dryness!*** 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, or part full, are tightly sealed unless in use.

Avoid breathing product vapour. Use with adequate ventilation. If dealing with a spill, and ventilation is impossible or impractical, wear an organic vapour respirator.

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.

## 10. SPILL PROCEDURES

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

## 11. DISPOSAL

Waste Disposal approved	<b>do not flush to sewer</b> , recycle solvent if possible, but never distil to dryness; may be incinerated in facility with flue gas scrubbing & monitoring
Containers	<b>Drums</b> should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. <b>Pails</b> must be vented and thoroughly dried prior to crushing and recycling. <b>IBCs</b> (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. <b><i>Never cut, drill, weld or grind on or near this container, even if empty</i></b>

## 12. ENVIRONMENTAL INFORMATION

***NOTE: No information is available for specifically DPM Acetate. The information below is for the similar product DPM.***

Bioaccumulation	not a bioaccumulator due to high water solubility and rapid rate of elimination/metabolism
Biodegradation	this product degrades readily in the presence of oxygen; 31% biodegradation in 20 days
Abiotic Degradation	direct photolysis is reported to cause destruction with a half-life of 3-4 hours
Mobility in soil, water	this product is water soluble and will move readily in soil and water

### **Aquatic Toxicity**

LC <sub>50</sub> (Fish, 96hr)	10,000mg/litre (pimephales promelas)
LC <sub>50</sub> (Crustacea, 96hr)	above 1000mg/litre (crangon crangon), 1920mg/litre (daphnia magna, 48hr)

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### 13. TRANSPORT REGULATIONS

<b>Canada TDG</b>	<b>PIN</b>	<b>UN-not regulated for transport</b>
	<b>Shipping Name</b>	<b>not regulated for transport</b>
	<b>Class</b>	<b>not regulated for transport</b>
	<b>Packing Group</b>	<b>not regulated for transport</b>
<b>U.S.A. 49CFR</b>	<b>PIN</b>	<b>NA-1993</b>
	<b>Shipping Name</b>	<b>COMBUSTIBLE LIQUIDS N.O.S. (dipropylene glycol methyl ether acetate)</b>
	<b>Class</b>	<b>3</b>
	<b>Packing Group</b>	<b>none</b>
<b>Marine Pollutant</b>		<b>not a marine pollutant</b>

### 14. EMERGENCY INFORMATION

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

### 15. REGULATIONS

<b>Canada DSL</b>	<b>on inventory</b>
<b>U.S.A. TSCA</b>	<b>on inventory</b>
<b>Europe EINECS</b>	<b>on inventory</b>

*This product is also present on the chemical inventories of many other countries.*

### 16. PREPARATION INFORMATION

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

*With data from RTECS, Haz. Substance Data Base, Cheminfo (CCOHS), IUCALID Datasheets (European Chem. Substance Info. System), & others, as available*

*Preparation Date: February 2007 Revision Date: February 2010*

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