



## Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

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

### 2. HAZARDS

**Quick Guide:** combustible liquid

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, F – Reactive Substance*



U.S.A. – HMIS

Key:

**Health – 2, Fire – 2, Reactivity – 0**

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

### 3. COMPOSITION

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

### 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. <b>CAUTION: Rescuer must not endanger himself!</b> 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                | 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 |
| Firefighting Precautions   | foam, dry chemical, water fog or spray; firefighters must wear SCBA   |
| Static Charge Accumulation | cannot accumulate a static charge on agitation or pumping   |

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

## 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, oxidising agents and substances listed in Part 10. 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.

## 8. EXPOSURE CONTROL & PERSONAL PROTECTION

|                      |  |                     |                                |
|----------------------|--|---------------------|--------------------------------|
| <b>Ontario TWAEV</b> | 100ppm / 776mg/m <sup>3</sup>  | <b>Ontario STEV</b> | 150ppm / 1164mg/m <sup>3</sup> |
| ACGIH TLV            | not listed   |                     |                                |
| OSHA PEL             | not listed   |                     |                                |
| Ventilation          | general ventilation adequate – no special ventilation is required  |                     |                                |
| Hands                | no protective gloves required; nitrile or neoprene gloves are resistant – <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. 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 160grams/litre*                     |
| 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  |

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**10. REACTIVITY**

|                                     |   |
|-------------------------------------|---|
| Dangerously Reactive With hydrides, | strong oxidising agents; alkali metals (eg: Na), alkaline earth metals (eg: Ca), 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  |

**11. 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) – <i>no mortality at this dose</i>          |
| LC <sub>50</sub> (inhalation) | 735ppm (rat)  |

**12. ECOLOGICAL INFORMATION**

|                                    |  |
|------------------------------------|--|
| Bioaccumulation                    | not a bioaccumulator; water soluble & rapidly eliminated or metabolised              |
| Biodegradation                     | biodegrades in the presence of oxygen; >60% in 28 days ( <i>acclimated sludge</i> )* |
| Abiotic Degradation                | direct photolysis is reported to cause destruction with a ½-life of 3.8 hours*       |
| Mobility in soil, water            | water soluble; moves readily in soil and water                                       |
| <b>Aquatic Toxicity</b>            |  |
| LC <sub>50</sub> (Fish, 96hr)      | 151mg/litre (Pimephales promelas)*, 100-180mg/litre (Oncorhynchus mykiss)*           |
| LC <sub>50</sub> (Crustacea, 48hr) | 1090mg/litre (Daphnia magna, 48hr)*  |
| EC <sub>50</sub> (Algæ)            | 11.4mg/litre (" <i>green algae</i> ")* – <i>predicted result, EPIWIN modelling</i>   |

\* *OECD SIDS Initial Assessment Report November 2003, Propylene Glycol Ethers:*

<http://www.chem.unep.ch/irpte/sids/ocedsids/PGEs.pdf>

**13. 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.<br><b>Pails</b> must be vented and thoroughly dried prior to crushing and recycling.<br><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.<br><i>Never cut, drill, weld or grind on or near this container, even if empty</i> |

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## 14. TRANSPORT CLASSIFICATION

|                         |                      |  |                       |
|-------------------------|----------------------|--|-----------------------|
| <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.</b>                |                       |
|                         |                      | <b>(dipropylene glycol methyl ether acetate)</b> |                       |
|                         | <b>Class</b>         | <b>3</b>   |                       |
|                         | <b>Packing Group</b> | <b>combustible</b>                               |                       |
| <b>Marine Pollutant</b> |                      | <b>not a marine pollutant</b>                    | <b>Safety Mark</b>    |
| <b>ERAP Required</b>    |                      | <b>NO</b>  | <b>for USA Only →</b> |



## **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>  |
| <b>European Classification</b> | <b>not available</b> |

## 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.

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