

Phone: 905-337-7411 Fax: 905-337-1686

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# 1. PRODUCT IDENTIFICATION

Name: Glycol Ether PM Acetate

**Synonyms:** 1-methoxy-2-propyl acetate; acetic acid, 1-methoxy-2-methylethyl ester; PM

Acetate 1-methoxy-2-acetoxypropane; propylene glycol monomethyl ether

acetate & others

CAS# 108-65-6

Product Uses: solvent in coatings, cleaners, etc.

Supplier Megaloid Laboratories Limited

Identifier: 5515 North Service Road, Suite 306

Burlington, Ontario, Canada

L7L 6G4

Phone: 905-337-7411 / Fax: 905-337-1686

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

INFORMATION

# 2. HAZARDS

GHS Class (category)	Flammable (3)	
Signal Words	WARNING	
Hazard Statements	flammable liquid & vapour (H226)	Label Pictograms

GHS Precautionary Statements for Labelling		
Prevention		
P210	Keep away from heat, sparks, open flames and hot surfaces. No smoking.	
P233	Keep container tightly closed.	
P240	Ground or bond container and receiving equipment.	
P241	Use explosion-proof electrical, ventilating and lighting equipment.	
P242	Use only non-sparking tools.	
P243	Take precautionary measures against static discharge.	
P280	Wear eye protection, protective gloves and clothing of butyl rubber	
Response		

P303, P361, P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage	
P403 + P235	Store in a well-ventilated place. Keep cool.
Disposal	
P501	Dispose of contents and container in accordance with local, regional, national and international regulations.

# 3. COMPOSITION

Chemical Name:	CAS No.	%	Other Identifiers
Propylene glycol monomethyl ether acetate	108-65-6	100	EC # 203-603-9

# 4. FIRST AID

#### 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.

# First-aid Comments

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

#### **Extinguishing Media**

#### Suitable Extinguishing Media

Foam, dry chemical, water fog, water spray only to cool & dilute

# **Combustion Products**

Carbon monoxide, nitrogen oxides, smoke, part oxidized hydrocarbon fragments including formaldehyde, acetaldehyde, acetic acid plus other toxic & irritating compounds

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

Firefighters must wear SCBA. Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

#### 6. ACCIDENTAL RELEASE MEASURES

#### **Serious Fire Potential:**

in summer (above 40oC), blanket spill with foam as a precaution against accidental ignition. Take care to avoid sparks – do not operate (turn on OR off) electrical appliances near spill, unless explosion proof.

# Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

#### **Environmental Precautions**

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

# Methods and Materials for Containment and Cleaning Up

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 & pick up using plastic or aluminium shovel, & store in closed containers for recycling or disposal.

#### Other Information

Report spills to local health, safety and environmental authorities, as required.

#### 7. HANDLING & STORAGE

# **Precautions for Safe Handling**

Use non-sparking bronze or aluminium hand tools. All electrical and mechanical equipment (including lighting, switchgear and forklift trucks) used with or around this product must be explosion-proof. Avoid creating or breathing product vapour. If vapour is created in use, install adequate exhaust ventilation. If dealing with a spill, and ventilation is impossible or impractical, wear a suitable respirator with organic vapour cartridge. Explosive peroxides may form on prolonged storage in contact with oxygen (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.

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

# **Conditions for Safe Storage**

Store in a cool, dry environment, away from oxidizing agents and substances listed in Part 10. Always ensure that containers, whether empty or full, or part full, are tightly sealed unless in use.

# 8. EXPOSURE CONTROL & PERSONAL PROTECTION

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

Ventilation general ventilation adequate – no special ventilation is required

Hands not required – nitrile gloves may be used – consult supplier to confirm suitability

Eyes safety glasses with side shields – always protect the eyes

Clothing No special protective clothing required

# 9. PHYSICAL PROPERTIES

Appearance	Colourless. Absorbs moisture from the air.
Odour	Fruity
Odour threshold	Not available
рН	Not available
Melting Point/Freezing Point	-66 °C (-87 °F) (freezing)
Initial Boiling Point/Range	145 °C (293 °F)
Flash Point	42 °C (108 °F) (closed cup)
Evaporation Rate	0.33 (n-butyl acetate = 1)
Flammability ( Solid, Gas)	Not Available
Upper/Lower Flammability or Explosive Limit	13.1% (upper); 1.3% (lower), (both at elevated temperature)
Vapour Pressure	3.9 mm Hg (0.5 kPa) at 25 °C (77 °F)
Vapour Density (air = 1)	4.6
Relative Density (water = 1)	0.968 at 20 ℃ (68 °F)
Solubility	198 g/L in water; common organic solvents.
Partition Coefficient, n-Octanol/Water (Log Kow)	0.56
Auto-ignition Temperature	272 °C (522 °F)
Conversion Factor	$1ppm = 5.41g/m^3$
Viscosity	1.31 centipoises (dynamic)
Physical State	Liquid
Molecular Weight	132 grams per mole
Molecular Formula	C6H12O3

# **10. REACTIVITY**

**Dangerously Reactive** with strong oxidising agents; alkali metals (eg: Na), alkaline earth metals (eg: Ca), metal hydrides, halogens (chlorine etc.); hypochlorites – may form **Also Reactive** with strong acids (flammable products); strong alkalies (generate heat); attacks & softens PVC (polyvinyl chloride)

# **Chemical Stability**

stable; will not polymerize

# **Decomposition Products**

Apart from Hazardous Combustion Products, hydrogen gas

#### **Conditions to Avoid**

Decomposes in presence of copper, aluminium, zinc and their alloys may accelerate the decomposition of PM Acetate peroxides

# **Mechanical Impact**

No

#### 11. TOXICITY

Prolonged exposure may cause dermatitis.

Acu	te T	OXI	city

**LD**<sub>50</sub> (oral) 85301, 13,530 & 13,7002mg/kg (rat)

**LD50 (skin)** >2000, >5000 & 19,4002mg/kg (rabbit)

**LC50 (inhalation)** 20002, 43402 & >5320ppm (rat)

#### Skin Corrosion/Irritation

Not a skin irritant.

# Serious Eye Damage/Irritation

Slightly irritating.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

# Inhalation

Headache, dizziness, drowsiness, intoxication, but only at high vapour/mist titre – at which level respiratory irritation should act as adequate warning.

# **Skin Absorption**

Some skin absorption; no toxic effects likely by this route.

# *I*ngestion

At 5000mg/kg, rats showed central nervous depression – not a route of industrial exposure.

# STOT (Specific Target Organ Toxicity) - Repeated Exposure

Do not breathe vapours. If inhaled remove person to fresh air and keep comfortable for breathing.

# Respiratory and/or Skin Sensitization

Not a sensitizer in humans or animals.

#### Carcinogenicity

Not a carcinogen. IARC: Not specifically listed. ACGIH®: Not specifically designated. NTP: Not specifically listed. OSHA: Not specifically listed.

# **Reproductive Toxicity**

#### **Development of Offspring**

No known effect in humans or animals. NOAEL (reproduction) - 1000ppm (rat – maternal toxicity seen at 300ppm)

# **Sexual Function and Fertility**

NOTE: Commercial Glycol Ether PM Acetate is >99% alpha isomer. Teratogenicity & fetotoxicity are only ascribed to the beta isomer.

# **Germ Cell Mutagenicity**

No known effect on humans or animals.

# 12. ECOLOGICAL INFORMATION

Bioaccumulation	rapidly eliminated or metabolised; not a bioaccumulator
Persistence and	Biodegradation -
Degradability	biodegrades readily & rapidly in the presence of oxygen – >90% in 28 days, >99% in 28 days
	Abiotic Degradation -
	hydrolyses at alkaline pH – $\frac{1}{2}$ -life 8 days at pH = 9
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	· · · · · · · · · · · · · · · · · · ·
LC50 (Fish, 96hr)	161mg/litre (Pimephales promelas); 134mg/litre (Oncorhynchus mykiss), >100mg/litre (Oryzias latipes)
EC50 (Crustacea, 48hr)	373, 408 & 500mg/litre (Daphnia magna)
EC50 (Algae, 72hrs)	>1000mg/litre (Pseudokirchnerella subcapitata & Selenastrum capricornutum)
EC10 (Microorganisms)	>1000mg/litre (activated sewage sludge)

# 13. DISPOSAL

#### **Water 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 CLASSIFICATION

Canada TDG AND	PIN Shipping Name	UN3272 Flammable Liquid Esters, n.o.s. (propylene Glycol monomethyl	
U.S.A. 49 CFR	Class & Packing Group	ether acetate)  3, PG III	3
W : D !!		.,	

Marine Pollutant	Not a Marine Pollutant	
ERAP Required	NO	
Reportable Quantity	NO	
E R G No.	127	

Note: PM Acetate has also been known to be classified as:

Canada TDG	PIN	UN3272

AND		Esters, n.o.s (propylene Glycol methyl ether
U.O.A. 40 OFF	Shipping Name	acetate)
U.S.A. 49 CFR	Class & Packing Group	3, PG III

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

# 15. REGULATIONS

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

# **Canadian Regulations**

**CEPA - National Pollutant Release Inventory (NPRI)** 

Part 5.

# **U.S.A.** Regulations

**Toxic Substances Control Act (TSCA) Section 8(b)** 

Listed on the TSCA Inventory.

**OSHA Hazard Communication Standard:** 

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Fire Hazard

Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

# Pennsylvania Worker and Community Right-To-Know Act:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65: (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances knownto the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

#### 16. OTHER INFORMATION

NFPA RATING	Health 1	Flammability	2	Instability 0	)
Prepared for	Megaloid Lab	oratories Limited by		Richard Koscher	
Preparation Date: Revision Dates:	August 2003  June 2006, June 2009, June 2012, April 2015, Nov 2017, Feb 2019				

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 NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration
References	RTECS® = Registry of Toxic Effects of Chemical Substances  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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