



Material Safety Data for: Glycol Ether DE Acetate

1. PRODUCT IDENTIFICATION

Name Diethylene Glycol Monoethyl Ether Acetate
Synonyms 2-(2-Ethoxyethoxy)ethyl acetate,
CAS# 112-15-2
Product Uses solvent, coupling agent

2. INGREDIENTS

	%	TWAEV / TLV ppm / mg/m ³	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ ppm INHALATION
Diethylene Glycol Monoethyl Ether	100%	not listed	3930	15,250	not known

3. (a) HAZARDS SUMMARY

Hazards, Quick Guide:	<i>not hazardous</i>
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Canada – WHMIS

Key:

not controlled under WHMIS

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 – 1, Fire – 1, Reactivity – 0

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

3. (b) HAZARDS – TOXICITY

Effects, Acute Exposure

Skin Contact	may be slightly irritating
Skin Absorption	yes; no toxic effects likely by this route
Eye Contact	may be slightly irritating
Inhalation	may irritate but low vapour pressure makes this unlikely
Ingestion	not known – not a route of industrial exposure

Effects, Chronic Exposure

General	prolonged exposure may cause dermatitis; prolonged absorption in rats & guinea pigs rabbits caused kidney damage (<i>only visible on autopsy</i>) – unlikely route of industrial exposure, <i>particularly in view of bitter taste</i>
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)	11,000mg/kg (rat), 4400mg/kg (rabbit), 3930mg/kg (guinea pig)
LD ₅₀ (skin)	15,250mg/kg (rabbit)
LC ₅₀ (inhalation)	not known

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

4. FIRST AID

SKIN:	Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or 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 mild, sweetish odour and bitter taste
Odour Threshold	not known
Vapour Pressure	0.1mmHg / 0.013kPa (20°C / 68°F)
Evaporation Rate (<i>Butyl Acetate</i> = 1)	below 0.8
Vapour Density (air = 1)	6
Boiling Range	219°C / 426°F
Freezing Point	-25°C / -13°F
Specific Gravity	1.01 (20/20°C)
Water Solubility	1000 grams per litre (20°C / 68°F)
Also soluble in	most organic solvents, limited solubility in glycols and methanol
Viscosity	2.8centipoise (25°C / 77°F)
pH	none – (<i>does not liberate hydrogen ions when dissolved</i>)
Conversion Factor	1ppm = 7.2mg/m ³
Molecular Weight	171grams per mole

6. FLAMMABILITY & FIRE FIGHTING

Flash Point	107°C / 225°F (closed cup)
Autoignition Temperature	360°C / 680°F
Flammable Limits	1% - 19.4%
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water – water jet spreads flames; firefighters must wear SCBA
Static Charge Accumulation	cannot accumulate a static charge on agitation or pumping

7. STABILITY / REACTIVITY

Dangerously Reactive With	strong oxidising agents
Also Reactive With	none known
Stability	stable; will not polymerize
Decomposes in Presence of	not known
Decomposition Products	none apart from Hazardous Combustion Products
Sensitive to Mechanical Impact	no

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8. PROTECTIVE EQUIPMENT / EXPOSURE CONTROL

TWAEV / TLV	not listed
STEL	not listed
Ventilation	not required unless product mist is generated in processing
Hands	neoprene gloves may be worn – <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. 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 mist. 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 & pick up using plastic or aluminium shovel, & store in closed containers for recycling or disposal

11. DISPOSAL

Waste Disposal	do not flush to sewer , recycle solvent if possible, 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. <i>Never cut, drill, weld or grind on or near this container, even if empty</i>

12. ENVIRONMENTAL INFORMATION

Bioaccumulation	this product is not a bioaccumulator
Biodegradation	this product degrades readily in the presence of oxygen; 60% biodegradation in 10 days
Abiotic Degradation	this product reacts with atmospheric hydroxyl radicals; its estimated half-life in air is 13 hours; hydrolyses in water with a half-life of 300 days at pH 7 and 30 days at pH 8
Mobility in soil, water	this product is highly water soluble and will move readily in soil and water

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13. TRANSPORT REGULATIONS

<i>Canada TDG</i>	PIN	UN-not regulated for transport
	Shipping Name	not regulated for transport
	Class	not regulated for transport
	Packing Group	not regulated for transport
<i>U.S.A. 49 CFR</i>	PIN	UN- not regulated for transport
	Shipping Name	not regulated for transport
	Class	not regulated for transport
	Packing Group	not regulated for transport
Marine Pollutant		not a marine pollutant

14. EMERGENCY INFORMATION

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

15. REGULATIONS

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory

Atmospheric Standards: This action promulgates standards of performance for equipment leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemical Manufacturing Industry (SOCMI). The intended effect of these standards is to require all newly constructed, modified, and reconstructed SOCMI process units to use the best demonstrated system of continuous emission reduction for equipment leaks of VOC, considering costs, non air quality health and environmental impact and energy requirements. Diethylene glycol monoethyl ether acetate is produced, as an intermediate or a final product, by process units covered under this subpart.

TSCA Requirements: Pursuant to section 8(d) of TSCA, EPA promulgated a model Health and Safety Data Reporting Rule. The section 8(d) model rule requires manufacturers, importers, and processors of listed chemical substances and mixtures to submit to EPA copies and lists of unpublished health and safety studies. Ethanol, 2-(2-ethoxyethoxy)-, acetate is included on this list. Section 8(a) of TSCA requires manufacturers of this chemical substance to report preliminary assessment information concerned with production, use, and exposure to EPA as cited in the preamble in 51 FR 41329.

FDA Requirements: Diethylene glycol monoethyl ether acetate is an indirect food additive for use only as a component of adhesives.

16. PREPARATION INFORMATION

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

File Name: **DE Ace**

Data from RTECS, Haz. Substance Data Base, Cheminfo, manufacturer data, and other source, as available

*Preparation Date: **January 2004** Revision Date: **February 2007***

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