

1. PRODUCT IDENTIFICATION

Name:	Glycol Ether EB Acetate
Synonyms:	ethylene glycol monobutyl ether acetate; 2-butoxyethyl acetate; acetic acid, 2- butoxyethyl
CAS#	112-07-2
Product Uses:	solvent in cleaners and coatings.
Supplier Identifier:	Megaloid Laboratories Limited 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 (4)	Acute toxicity oral (4)	Acute toxicity skin (4)	Acute inhalation (4)	
Signal Word	WARNING				
Hazard Statements	Combustible liquid (H227)	Harmful if swallowed (H302)	Harmful in contact with skin (H312)	Harmful if inhaled (H332)	Label Pictograms

GHS Precautionary Statements for Labelling		
Prevention		
P210	Keep away from heat, sparks, open flames and hot surfaces. No smoking.	
P260	Do not breathe mist, vapours or spray.	
P262	Do not get in eyes, on skin or on clothing.	
P264	Wash hands thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P280	Wear eye protection, protective gloves and clothing of butyl rubber	
Response		
P301, P310	If swallowed, immediately call a doctor.	

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P304, P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305, P351, P338	IF IN EYES: rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P313, 333	If skin irritation or rash occurs, get medical advice/attention.
P330	Rinse mouth.
P370, P378	In case of fire use alcohol-resistant foam to extinguish.
Storage	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Disposal	
P501	Dispose of contents and container in accordance with local, regional, national and international regulations.

3. COMPOSITION

Chemical Name:	CAS No.	%	Other Identifiers
2-Butoxyethyl Acetate	112-07-2	100	EC # 203-933-3

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, product floats on water - water jet spreads flames

Combustion Products

Carbon monoxide, nitrogen oxides, smoke, part oxidized hydrocarbon fragments

Static Charge Accumulation

Cannot accumulate a static charge on agitation or pumping.

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

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

Glycol Ether EB Acetate may react with oxygen in air to form explosive peroxides. Ensure that containers are full & tightly sealed. If prolonged storage of a part container is anticipated, flush headspace with dry nitrogen gas prior to sealing. Never distil this product to dryness (peroxides may concentrate & explode). Empty containers may contain a flammable / explosive vapour. Always ensure that containers, whether empty or full, are tightly sealed unless in use. Avoid breathing product vapour or mist.

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 & use in a cool, dry environment, away from sources of ignition & oxidizing agents.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWAEV	not listed	Ontario STEV	not listed
ACGIH TLV	20ppm / 130mg/m ³	ACGIH STEL	not listed
OSHA PEL	not listed	OSHA STEL	not listed

Ventilationprobably not required; if product is heated, mechanical ventilation may be requiredHandsbutyl rubber gloves recommended – other types may also protect; consult supplier
to confirm suitabilityEyesSafety glasses with side shields – always protect the eyes

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Appropriate Engineering Controls

Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

9. PHYSICAL PROPERTIES

Appearance	Clear colourless liquid.
Odour	sweet, fruity odour
Odour threshold	0.1 – 0.5ppm
рН	7
Melting Point/Freezing Point	-63°C / -81°F, also -70°C / -94°F
Initial Boiling Point/Range	192-194°C / 378-381°F
Flash Point	71°C / 160°F (closed cup); also given as 78°C / 172°F & as 84°C / 183°F
Evaporation Rate	Not known – like high-flash mineral spirits (Butyl Acetate =1)
Flammability (Solid, Gas)	Not Available
Upper/Lower Flammability or Explosive Limit	0.9% – 8.5%
Vapour Pressure	0.3mmHg / 0.04kPa (20°C / 68°F)
Vapour Density (air = 1)	5.5
Specific Gravity	0.942 (20/20°C)
Water Solubility	17grams/litre (20°C / 68°F), 15grams/litre (20°C / 68°F). Also soluble in most organic solvents, limited solubility in glycols and methanol
Partition Coefficient, n-Octanol/Water (Log Kow)	1.57 & 1.51
Auto-ignition Temperature	340°C / 645°F
Conversion Factor	$1ppm = 6.5mg/m^3$
Viscosity	1.92 centipoise (20°C / 68°F)
Physical State	Liquid
Molecular Weight	160 grams per mole
Molecular Formula	C8H16O3

10. REACTIVITY

Dangerously Reactive with strong oxidising agents; strong alkalis.

Also Reactive with- none known

Chemical Stability *Stable; will not polymerize*

Possibility of Hazardous Reactions

Polymerization will not occur.

Conditions to Avoid

Do not distil to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Mechanical Impact

not sensitive

11. TOXICITY

Acute Toxicity

LD₅₀ (oral) 1880, 1600 – 7000mg/kg (rat, several tests), 2830 & 3200mg/kg (mouse)

LD50 (skin) 1490, 1500 & 1580mg/kg (rabbit)

LC50 (inhalation) 2660, $3680 mg/m^3$ (rat) – no mortality, $3910 mg/m^3$ (rat) – 2 of 18 animals died

Skin Corrosion/Irritation Not irritating. Serious Eye Damage/Irritation May be mildly irritating.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation May irritate but low vapour pressure makes this unlikely; mist or vapour from hot product. Skin Absorption Slight; no toxic effects likely by this route. Ingestion Headache, dizziness, nausea, vomiting – not a route of industrial exposure.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged exposure may cause dermatitis; may damage liver & kidneys; may damage red cells Causing reddish-brown urine.

Respiratory and/or Skin Sensitization Not known to be a respiratory sensitizer. Carcinogenicity Not known to be a carcinogen or tumorigen in humans; not carcinogenic by the U.S. NTP or by OSHA; animal (rodent) carcinogen A3 (ACGIH, oral) – not a route of industrial exposure.

Sexual Function and Fertility

No known effect in humans; **NOAEL** (reproduction) >450mg/kg/day/90days (rat, oral) & >720mg/kg/day/14weeks (oral, mouse). **Germ Cell Mutagenicity** Not known to be a mutagen. **NOAEC** (teratogen) >100ppm/12days (rabbit – gestation day 6-18; maternal NOAEC = >50ppm from the same tests.

12. ECOLOGICAL INFORMATION

Bioaccumulation	Not a bioaccumulator.
Persistence and	Biodegradation -
Degradability	biodegrades very rapidly; >90% in 6.5days, 96% in 14 days ¹ , 88% ¹ & 90% in 28 days
	Abiotic Degradation - no direct photolysis; reacts with atmospheric hydroxyl radicals; estimated ½-life in air is 18 hours
Mobility in soil, water	water soluble; moves readily in soil and water.
Aquatic Toxicity	
LC50 (Fish, 48hr)	80mg/litre (Lsuciscus idus), >20 & 28mg/litre (Oncorhynchus mykiss) 22 & 31mg/litre (Pimephelas promelas)
EC50 (Crustacea, 48hr)	37, 67, 143 & 180mg/litre (Daphnia magna)
EC50 (Algae)	>500mg/litre (Scenedesmus subspicatus), 520 & 1520mg/litre (Pseudokirchnerella quadricauda) 1570mg/litre (Pseudokirchnerella subcapitata)
EC50 (Bacteria)	960mg/litre (Pseudomonas putida), 900, 1000 & 2800mg/litre (domestic sewage sludge)

13. DISPOSAL

Water Disposal

Do not flush to sewer, recycle solvent if possible; rapid biodegradation suggests that biological destruction is very effective; may be incinerated in approved facility with flue gas monitoring & scrubbing

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 U.S.A. 49 CFR	PIN PIN Shipping Name	Not regulated for transport NA1993 Combustible Liquid, n.o.s. (2- Butoxyethyl acetate)	COMBUSTIBLE 3
	Class & Packing Group	Combustible, PG III	U.S. only
Note: not regulated for smaller quantities (<450 liters (119 US gals))			
Marine Pollutant	Not a Marine Po	ollutant	
ERAP Required	NO		
Reportable Quantity	NO		
E R G No.	128		

15. REGULATIONS

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

U.S.A. Regulations

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.

U.S. State Regulations

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):

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm. CACON

Components

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Ethylene glycol monoethyl ether	110-80-5
Ethylene glycol monoethyl ether acetate	111-15-9

Global Inventory Status

Country/Region	Inventory	Status Description
Australia	AICS	Compliant
China	IECSC	Compliant

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Japan	ENCS	Compliant
Korea	KECI	Compliant
New Zealand	NZIoC	Compliant
Philippines	PICCS	Compliant
Taiwan	TCSCA	Compliant

16. OTHER INFORMATION

NFPA RATING	Health 2	Flam	mability	2	Instability	0
Prepared for	Megaloid La	aboratories Limited	by	Rich	ard Koscher	
Preparation Date: Revision Dates:	March 2002 May 2005, June 2008, June 2011, June 2014, June 2017, Jan 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 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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