

SILVER FERN CHEMICAL

Material Safety Data Sheet

GLYCOL ETHER DB ACETATE

SECTION 1: IDENTIFICATION

Product Name: GLYCOL ETHER DB ACETATE

Chemical Family: Glycol Ethers

CAS Number: 124-17-4

Chemical Name: 2-(2-butoxyethoxy)ethanol acetate

Synonyms: Diethylene Glycol Monobutyl Ether Acetate; Butoxyethoxy Ether Acetate; Diglycolmonobutyl ether acetate

Company

Silver Fern Chemical, Inc.
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Suite #C
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Business Contact

Customer Service: 206-282-3376
info@silverfernchemical.com

24 Hour Emergency Contact

Infotrac 800-535-5053
Outside USA & Canada 352-323-3500

SECTION 2: HAZARD IDENTIFICATION

Emergency Overview

This material is HAZARDOUS by OSHA Hazard Communication definition.

Signal Word

WARNING!

Hazards

May cause irritation by all routes of exposure.

HMIS (U.S.A.):

Health Hazard: 1
Fire Hazard: 1
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1
Flammability: 1
Reactivity: 0



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Physical State

Liquid.

Color

Clear

Odor

Mild aromatic.

Odor Threshold

No value available.

Potential Health Effects**Routes of Exposure**

Skin. Eye Inhalation

Signs and Symptoms of Acute Exposure

See component summary.

2-(2-butoxyethoxy)ethanol acetate 124-17-4

Eye contact causes slight to moderate irritation/injury. Skin contact may cause slight irritation. In a severe overexposure toxic amounts may be absorbed causing CNS depression. Mist or vapors may cause irritation of the upper respiratory tract. Ingestion may cause CNS depression, gastrointestinal disturbances.

Diethylene glycol monobutyl ether 112-34-5

Moderate eye irritant. Effects of eye irritation are reversible. Contact may cause mild skin irritation. Not expected to be a sensitizer. Not a skin absorption hazard.

Skin

Non-irritating to the skin. May be absorbed through skin, although not expected to produce toxicity by this route.

Inhalation

The low volatility of this product suggests that exposure due to inhalation is unlikely.

Eye

Mild eye irritant, can cause conjunctivitis, and/or corneal opacity.

Ingestion

May cause irritation of the gastrointestinal tract.

Chronic Health Effects

See component summary.



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2-(2-butoxyethoxy)ethanol acetate 124-17-4

Repeated ingestion may lead to gastrointestinal disturbance.

Diethylene glycol monobutyl ether 112-34-5

May cause dermatitis by defatting the skin from prolonged or repeated contact.

Conditions Aggravated by Exposure

Any pre-existing disorders or diseases of the: central nervous system (CNS) lungs kidney

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component Name	CAS #	EU Inventory	Concentration	Wt.%*	Risk	Symbol
2-(2-butoxyethoxy)ethanol acetate	124-17-4		98.0	<= 99.5	None	None
Diethylene glycol monobutyl ether	112-34-5	203-961-6		<= 1.5	R36	Xi

* Concentration of gaseous products or materials is given in Mole %

Compositions given are typical values not specifications.

SECTION 4: FIRST AID MEASURES

General

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 3 of this MSDS.

Skin

Immediately remove excess chemical and contaminated clothing; thoroughly wash contaminated skin with mild soap and water. If irritation persists after washing, seek medical attention. Thoroughly clean contaminated clothing before reuse; discard contaminated leather goods (gloves, shoes, belts, wallets, etc.).

Inhalation

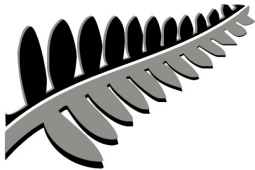
Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. When breathing is difficult, properly trained personnel may assist the affected person by administering oxygen. Keep the affected person warm and at rest. Get medical attention immediately.

Eye

Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Ingestion

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Have patient drink several glasses of water then induce vomiting by having patient tickle back of throat with finger.



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SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification

OSHA/NFPA Class III B combustible liquid.

Flash Point:

116 °C (240.8 °F) Pinsky-Martens

Auto-Ignition Temperature

200 °C (392 °F)

Lower Flammable Limit

0.8 vol%

Upper Flammable Limit

5.0 vol%

Extinguishing Media

Suitable: SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam.

LARGE FIRE: Use water spray, water fog or foam. DO NOT use straight streams. Water may be ineffective, but should be used to keep fire-exposed containers cool

Protection of Firefighters

Protective Equipment/Clothing: Wear a NIOSH approved respirator following manufacturer's recommendations, where airborne contaminants may occur.

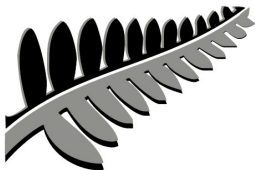
Fire Fighting Guidance: Avoid sparks, heat, and open flame. Individuals should perform only those fire-fighting procedures for which they have been trained. Fire fighters should wear self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes or hazardous decomposition products. Cool tanks and containers exposed to fire with water.

Hazardous Combustion Products: Carbon oxides (CO, CO₂)

SECTION 6: ACCIDENTAL RELEASE MEASURES

Release Response

Contain spill with dike to prevent entry into sewers or waterways. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spills, soak up with absorbent material and place in properly labeled containers for disposal. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.



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SECTION 7: HANDLING AND STORAGE

Handling

Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full. Do not eat, drink or smoke in areas where this material is used. After handling, always wash hands thoroughly with soap and water. Do not handle near heat, sparks, or flame. Avoid contact with incompatible agents. Use only with adequate ventilation/personal protection. Avoid contact with eyes, skin and clothing. Do not enter storage area unless adequately ventilated. Metal containers involved in the transfer of this material should be grounded and bonded.

Storage

Store containers in a cool, dry, ventilated, fire resistant area away from sources of ignition and incompatible materials. Keep container tightly closed and properly labeled.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1)

Personal Protection

Inhalation A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use.

Skin Wear chemical resistant gloves such as rubber, neoprene or vinyl. Appropriate protective clothing should be worn to prevent skin contact.

Occupational Exposure Limits:

<u>Component Name</u>	<u>Source / Date</u>	<u>Value</u>	<u>Type</u>	<u>Notation</u>
Diethylene glycol monobutyl ether	US (ACGIH) / 2003	N/L		
	US (OSHA) / 2003	N/L		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

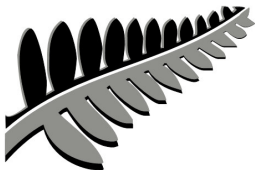
Appearance: Liquid. Clear

Odor: Mild aromatic.

Odor Threshold: No value available.

pH: 5 - 6

Boiling Point/Boiling Range: 242 °C (467.6 °F)



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Freezing Point/Melting Point: -36 °C (-32.8 °F)

Flash Point: 116 °C (240.8 °F) Pinsky-Martens

Auto-ignition: 200 °C (392 °F)

Flammability: OSHA/NFPA Class IIIB combustible liquid.

Lower Flammable Limit: 0.8 vol%

Upper Flammable Limit: 5.0 vol%

Explosive Properties: No Data Available.

Oxidizing Properties: No Data Available.

Vapor Pressure: 0.01 mm Hg @ 20 °C (68 °F)

Evaporation Rate: <0.0.1 (butyl acetate = 1)

Relative Density: 0.985 @ 20 °C (68 °F) (Air = 1.0)

Relative Vapor Density: 7.05

Viscosity: No Data Available.

Solubility (Water): 6.5 % (by wt.)

Partition Coefficient (Kow): Specific data not available.

Additional Physical and Chemical Properties: No additional information available.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

The product is stable.

Conditions to Avoid

Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

Substances to Avoid

Oxidizers, Acids, Alkalis

Decomposition Products

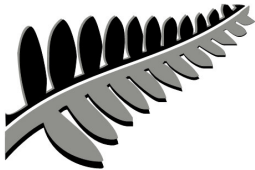
Carbon oxides (CO, CO₂)

Hazardous Polymerization

Will not occur.

Reactions with Air and Water

Does not react with water or common materials. May form peroxides in the presence of air.



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SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION

Product Summary

This substance appears to be of low toxicity, except for possible mild irritant effects in humans. A high dose may produce central nervous system depression, but there are no reports of adverse health effects from occupational exposure. At the time of this review, no studies were found on the possible carcinogenic activity of this material in humans or experimental animals.

Acute Toxicity - Lethal Doses

LD50 (Oral) Rat 6.9 - 11.9 G/KG

LD50 (Skin) Rabbit 5.4 - 14.9

COMPONENT INFORMATION

2-(2-butoxyethoxy)ethanol acetate 124-17-4

Acute Toxicity - Lethal Doses

LD50 (Oral) Rat 6.9 - 11.9 G/KG

LD50 (Skin) Rabbit 5.4 - 14.9

Diethylene glycol monobutyl ether 112-34-5

Acute Toxicity - Lethal Doses

LD50 (Oral) Rat 5080 MG/KG Mouse 2406 MG/KG

LD50 (Skin) Rabbit 2764 MG/KG

Irritation

Skin This substance is a mild skin irritant.

Eye Moderate eye irritant.

Target Organ Effects

Eye.

Reproductive Effects

In vivo animal studies show no adverse reproductive effects.

Developmental Effects

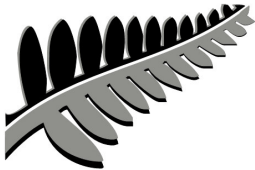
Results from animal studies demonstrate that this material is not a teratogen or toxic to the developing embryo or fetus.

Genetic Toxicity

Negative for genotoxicity both in vitro and in vivo tests.

Carcinogenicity

Not listed by IARC, NTP, or OSHA.



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SECTION 12: ECOLOGICAL INFORMATION

PRODUCT INFORMATION

Ecotoxicity

This material is expected to have low toxicity to aquatic species. However, due caution should be exercised to prevent the accidental release of this material to the environment.

Environmental Fate and Pathway

This material will biodegrade relatively rapidly in both soil and water, and will not persist in the environment. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems.

Persistence and Degradability

Bioaccumulation: This material is highly soluble in water and should not bioaccumulate in aquatic or terrestrial organisms.

COMPONENT INFORMATION

2-(2-butoxyethoxy)ethanol acetate 124-17-4

Ecotoxicity

Environmental Fate and Pathway

Diethylene glycol monobutyl ether 112-34-5

Ecotoxicity

Acute toxicity to fish

LC50 / 96 HOUR silverside minnow. 2,000 mg/l

LC50 / 96 HOUR bluegill. 1,300 mg/l

Summary: This material is not classified as harmful or toxic to fish.

Acute toxicity to aquatic invertebrates

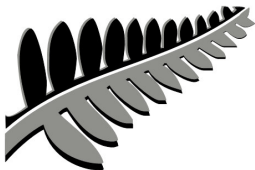
Summary: No Data Available.

Toxicity to aquatic plants

Summary: No Data Available.

Environmental Fate and Pathway

Expected to have high mobility in soils. It is water soluble and is expected to have low volatility. This material is expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase is degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals. Hydrolysis is not expected to be an important factor in the environmental fate process for this material.



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Persistence and Degradability

Stability in Soil: The Koc value suggests that this compound would be highly mobile if released onto soil and would not adsorb to suspended solids or sediments.

Biodegradation: This material is expected to be readily biodegradable.

Bioaccumulation: BCF < 5 This material is not expected to bioaccumulate.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations. Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. The materials resulting from clean-up operations may be hazardous wastes and therefore, subject to specific regulations.

SECTION 14: TRANSPORT INFORMATION

Special Requirements

If you reformulate or further process this material, you should consider re-evaluation of the regulatory status of the components listed in the composition section of this sheet, based on final composition of your product.

Proper Shipping Name GLYCOL ETHERS, NOT ELSEWHERE CLASSIFIED

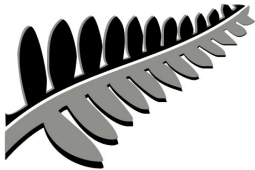
This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

Regulatory Status:

<u>Country</u>	<u>Inventory</u>
Australia	AICS X
Canada	DSL X
Canada	NDSL
China	IECS X
European Union	EINECS X
European Union	ELINCS
European Union	NLP
Japan	ENCS X
Korea	ECL X
Philippines	PICCS X
United States	TSCA X

X = All components are included or are otherwise exempt from inclusion on this inventory.



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All components of this product are listed or are exempt from listing on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

SARA 302/304

No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.

SARA 311/312

Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312:

Immediate/Health

SARA 313

This material contains the following chemicals with known CAS numbers subject to the reporting requirements of SARA Title III, Section 313 and 40 CFR 372:

<u>Component</u>	<u>Reporting Threshold</u>
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SECTION 16: OTHER INFORMATION

Created: 12/23/2004

Last Updated: 12/23/2004

DISCLAIMER OF RESPONSIBILITY

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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