

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Glycol Ether EB
CAS number	111-76-2
Synonyms	2-butoxyethanol, Ethylene glycol monobutyl ether

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals. Solvent.
-----------------	--------------------------------

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4)
Acute oral toxicity (Category 4)
Acute inhalation toxicity (Category 4)
Acute dermal toxicity (Category 4)
Skin Irritation (Category 2)
Eye Irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)

Target Organs - Respiratory system, Central nervous system

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Warning
Hazard statements	Combustible liquid. Harmful if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
Precautionary statements	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/ face protection. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
2-butoxyethanol	Glycol Ether EB, Ethylene glycol monobutyl ether	111-76-2	90 - 100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	If unconscious, place in recovery position and seek medical advice.
In case of skin contact	If symptoms persist, call a physician. If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to Physician: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂). Water spray. Dry chemical. Chemical foam.
Unsuitable extinguishing media	High volume water jet.

5.2 Specific hazards arising from the substance or mixture

Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point 67 - 72 °C / 153 - 162 °F

Autoignition Temperature 230 - 245 °C

Explosion limits

Upper 10.6 %(V)

Lower 1.1 %(V)

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	2	0	0

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No smoking. Keep in a well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Incompatibilities

Acids. Aluminum. Bases. Oxidizing agents. Amines. Ammonia.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
2-Butoxyethanol	TWA	50 ppm 240 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
2-Butoxyethanol	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
2-Butoxyethanol	TWA	5 ppm 24 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves.

Body Protection

Wear appropriate clothing to prevent skin exposure.

Respiratory protection

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Control of environmental exposure

Do not let product enter the drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Mild, sweet, ester-like
Odor Threshold	0.48 ppm
pH	No information available.
Melting Point/Range	-75 - -74.8 °C / -103 - -102.6 °F
Boiling Point/Range	171 - 173.5 °C / 340 - 344.3 °F
Evaporation Rate	0.06 - 0.1
Flammability (solid)	No information available.
Flammability or explosive limit	
Upper	10.6 %(V)
Lower	1.1 %(V)
Vapor Pressure	0.60 - 0.8775 mmHg @ 20 - 25 °C / 68 - 77 °F
Vapor Density	> 4 @ 20 - 25 °C / 68 - 77 °F (Air = 1.0)
Density	0.9 g/cm ³ @ 20 °C / 68 °F
Solubility	900 g/L completely miscible @ 25 °C / 77 °F
Partition coefficient; n-octanol/water	Pow: 6.46 @ 25 °C / 77 °F log Pow: 0.81 @ 25 °C / 77 °F
Autoignition Temp	230 - 245 °C
Decomposition Temp	No information available.
Viscosity	dynamic: 3.3 mPa.s @ 20 °C / 68 °F kinetic: 3.642 - 3.7 mm ² /s @ 20 °C / 68 °F
Molecular Formula	C ₆ H ₁₄ O ₂
Molecular Weight	118.2
VOC Content(%)	No information available.
Oxidizing properties	No information available.

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Reacts with air to form peroxides.

10.4 Conditions to avoid

Keep away from heat, flame, sparks, and other ignition sources.

10.5 Incompatible materials

Acids, aluminum. bases, oxidizing agents, amines, ammonia.

10.6 Hazardous decomposition products

Carbon oxides, aldehydes, ketones, organic acids

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Butoxyethanol	1314 mg/kg	1112 mg/kg	2.56 mg/L

Skin corrosion/irritation

Irritating to skin.

Serious eye damage/eye irritation

Irritating to eyes.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
2-Butoxyethanol	111-76-2	Not listed	Not listed	A3	Not listed	A3

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

11.2 Additional Information

The toxicological properties have not been fully investigated.

SECTION 12: Ecological information**12.1 Toxicity**

Product		Species	Test Results	
2-Butoxyethanol	EC50	freshwater algae	1840 mg/L	72 h
	LC50	freshwater fish	1490 mg/L	96 h
	LC50	freshwater fish	2950 mg/L	96 h
	EC50	water flea	1550 mg/L	48 h
	EC50	water flea	> 1000 mg/L	48 h
	EC50	water flea	1698-1940 mg/L	24 h

12.2 Persistence and degradability

Persistence is unlikely.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-no	NA1993
Proper Shipping Name	Combustible liquid, n.o.s (2-butoxyethanol)
Hazard Class	CBL
Packing Group	III

IMDG

UN-no	NA1993
Proper Shipping Name	Combustible liquid, n.o.s (2-butoxyethanol)
Hazard Class	CBL
Packing Group	III

IATA

UN-no	NA1993
Proper Shipping Name	Combustible liquid, n.o.s (2-butoxyethanol)
Hazard Class	CBL
Packing Group	III

SECTION 15: Regulatory information

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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Listed. See section 2 for more information.

SARA 313 (TRI reporting)

Regulated. 2-butoxyethanol (111-76-2). Weight: < 100%.
Threshold values: 1.0%

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Regulated.

Safe Drinking Water Act

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Listed. 2-butoxyethanol (111-76-2).

US. New Jersey Worker and Community Right-to-Know Act

Listed. 2-butoxyethanol (111-76-2).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed. 2-butoxyethanol (111-76-2).

California Proposition 65

Not listed.

SECTION 16: Other information

Issue date: 09/24/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.