

Ethylene Glycol Monobutyl Ether

Safety Data Sheet

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Version: #1

SECTION 1: Identification

1.1. Identification

Product name : Ethylene Glycol Monobutyl Ether
Product form : Substance
EC number : 203-905-0
CAS-No. : 111-76-2
Formula : C₆H₁₄O₂

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

Identified uses : Chemical for synthesis.

1.3. Supplier

FARSA Group Ltd
Sales@farsagroup.az

1.4. Emergency contacts

Emergency number : +994512707856

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Acute toxicity, oral : Category 4, H302
Acute toxicity, inhalation : Category 3, H331
Skin irritation : Category 2, H315
Eye irritation : Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

Pictogram



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H331 Toxic if inhaled.

Precautionary statements : P261 Avoid breathing mist or vapors.
 P264 Wash skin thoroughly after handling.
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Toxicological information : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

2-butoxyethanol		
Identification	Classification	Concentration
CAS No: 111-76-2 EC No: 203-905-0	Acute Tox. 4; Acute Tox.3; Skin Irrit. 2; Eye Irrit.2; H302, H331, H315, H319 Acute oral toxicity: 1.200mg/kg Acute inhalation toxicity(vapor): 3 mg/l	<= 100 %

SECTION 4: First-aid measures

4.1. Description of first aid measures

General notes : First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

Following inhalation : Fresh air. Immediately call-in physician. If breathing stops: immediately apply artificial respiration, if necessary, also oxygen.

Following skin contact : Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

Following eye contact : After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

Following ingestion : After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂) Foam Dry powder.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Carbon oxides.
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.
Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4. Reference to other section

For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

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- Advice on protection against fire and explosion** : Keep away from open flames, hot surfaces and sources of ignition Take precautionary measures against static discharge.
- Hygiene measurers** : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions** : Do not use light-weight-metal containers.
Protected from light. Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.
Recommended storage temperature sees product label.
- Storage class** : Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with workplace control parameters

Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, long term	dermal	Systemic effects	
Worker DNEL, long term	inhalation	Systemic effects	98 mg/m ³
Consumer DNEL, long term	dermal	Systemic effects	
Consumer DNEL, long term	oral	Systemic effects	
Consumer DNEL, acute	inhalation	Local effects	123 mg/m ³
Consumer DNEL, long term	inhalation	Systemic effects	49 mg/m ³

8.2. Exposure controls

- Eye/face protection** : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.
- Skin protection** : This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.
- Body protection** : Protective clothing
- Respiratory protection** : Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.
- Control of environmental exposure** : Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid	Kinematic viscosity	3,642 mm ² /s at 20 °C
Colour	Colourless	Dynamic viscosity	3,6 mPa.s at 20 °C
Odour	Ether-like, mild, sweet	Water solubility	No data available
pH	7 at 20 °C	Partition coefficient n-octanol/water	log Pow: 0,81 at 25 °C
Melting point/range	-75 °C	Vapour pressure	No data available
Initial boiling point/range	173,5 °C at 1.013 hPa - (ECHA)	Density	0,90 g/cm ³ at 20 °C
Flammability	No data available	Relative density	No data available
Upper explosion limit	12.7 %(V)	Relative vapor density	No data available
Lower explosion limit	1.1 %(V)	Particle characteristic	No data available
Flash point	67 °C	Explosive properties	No data available
Autoignition temperature	230 °C at 1.013,25 hPa	Oxidizing properties	None
Decomposition temperature	Distillable in an undecomposed state at normal pressure.	-	-

9.2. Other information

- Surface tension** : 65,03 mN/m at 2g/l at 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

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10.3. Possibility of hazardous reaction

Violent reactions possible with: Strong oxidizing agents
Generates dangerous gases or fumes in contact with: Aluminum

10.4. Conditions to avoid

Strong heating.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Peroxides

In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Classification according to GHS (1272/2008/EC, CLP)

Exposure route	Endpoint	Acute toxicity		
		Value	Species	Source
Oral	LD50	1.414 mg/kg	Guinea pig	ECHA

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/eye irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Shall not be classified as a respiratory or skin sensitiser.
Germ cell mutagenicity	: Shall not be classified as germ cell mutagenic.
Carcinogenicity	: Shall not be classified as carcinogenic.
Reproductive toxicity	: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
STOT - single exposure	: Shall not be classified as a specific target organ toxicant (single exposure).
STOT - repeated exposure	: Shall not be classified as a specific target organ toxicant (repeated exposure).
Aspiration hazard	: Shall not be classified as presenting an aspiration hazard.

11.2. Endocrine disrupting properties

Not listed.

11.3. Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1. Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
LC50	1.474 mg/l	fish	ECHA	96 h
EC50	1.550 mg/l	aquatic invertebrates	ECHA	48 h
ErC50	1.840 mg/l	algae	ECHA	72 h

Aquatic toxicity (chronic)				
Endpoint	Value	Species	Source	Exposure time
EC50	297 mg/l	aquatic invertebrates	ECHA	21 d

Biodegradation : The substance is readily biodegradable.

12.2. Persistence and degradability

Aerobic - Exposure time 28 d
Result: 90,4 % - Readily biodegradable.

12.3. Bioaccumulative potential

Data are not available.

12.4. Mobility in soil

Data are not available.

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No data available.

SECTION 14: Transport information

14.1. UN number

ADR/RID : 2810
IMDG : 2810

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IATA	: 2810
14.2. UN proper shipping name	
ADR/RID	: TOXIC LIQUID, ORGANIC, N.O.S. (2-butoxyethanol)
IMDG	: TOXIC LIQUID, ORGANIC, N.O.S. (2-butoxyethanol)
IATA	: Toxic liquid, organic, n.o.s. (2-butoxyethanol)

14.3. Transport hazard class(es)	
ADR/RID	: 6.1
IMDG	: 6.1
IATA	: 6.1

14.4. Packing group	
ADR/RID	: III
IMDG	: III
IATA	: III

14.5. Environmental hazards	
ADR/RID	: No.
IMDG Marine pollutant	: No.
IATA	: No.

14.6. Special precautions for user	
Tunnel restriction code	: (E)

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorizations and/or restrictions on use

National legislation	: Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. H2 ACUTE TOXIC
Other regulations	: Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Harmful if swallowed.
H331 Causes skin irritation.

Disclaimer:

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text