

: Butyl Glycol MSDS:

- **Chemical characterization:**

- **CAS No. Description**

111-76-2 2-butoxyethanol

- **Identification number(s)**

- **EINECS Number:** 203-905-0

- **EU Number:** 603-014-00-0

- **Hazard description:**

Xn Harmful

- **Information concerning particular hazards for human and environment:**

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours

after the accident.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** Call for a doctor immediately.

- **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **Protective equipment:** Mouth respiratory protective device.

- **Person-related safety precautions:** Not required.

- **Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Handling:**

- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.

- **Information about fire - and explosion protection:** No special measures required.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**

111-76-2 2-butoxyethanol

PEL (USA)

REL (USA)

TLV (USA)

TLV (EU)

WEL (Great Britain)

240 mg/m³, 50 ppm

Skin

24 mg/m³, 5 ppm

Skin

97 mg/m³, 20 ppm

Short-term value: 246 mg/m³, 50 ppm

Long-term value: 98 mg/m³, 20 ppm

Skin

Short-term value: 50 ppm

Long-term value: 25 ppm

- **Additional information:** The lists valid during the making were used as basis.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use

self-contained respiratory protective device.

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- **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and

varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles

· **General Information**

Form: *Oily*

Colour: *Colourless*

Odour: *Characteristic*

· **Change in condition**

Melting point/Melting range: *-70.4°C*

Boiling point/Boiling range: *171°C*

· **Flash point:** *65°C*

· **Ignition temperature:** *240°C*

· **Danger of explosion:** *Product does not present an explosion hazard.*

· **Explosion limits:**

Lower: *1.1 Vol %*

Upper: *10.6 Vol %*

· **Vapour pressure at 20°C:** *1.2 hPa*

· **Density at 20°C:** *0.9 g/cm³*

· **Solubility in / Miscibility with**

water at 20°C: *1.000 g/l*

· **Viscosity:**

Dynamic at 20°C: *6.4 mPas*

· **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*

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· **Dangerous reactions** *No dangerous reactions known.*

· **Dangerous decomposition products:** *No dangerous decomposition products known.*

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Oral LD50 1480 mg/kg (rat)

Dermal LD50 400 mg/kg (rab)

· **Primary irritant effect:**

· **on the skin:** *Irritant to skin and mucous membranes.*

· **on the eye:** *Irritating effect.*

· **Sensitization:** *No sensitizing effects known.*

· **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Product:**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** *Disposal must be made according to official regulations.*

· **Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** -

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

Xn Harmful

· **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

36/38 Irritating to eyes and skin.

· **Safety phrases:**

2 Keep out of the reach of children.

36/37 Wear suitable protective clothing and gloves.

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46 If swallowed, seek medical advice immediately and show this container or label.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Product safety department.

· **Contact:** Terminal Manager

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Code: BTG

Description: Butyl Glycol

Test Description	Specification Limits		Unit of Measure	Test Method
	Min.	Max.		
Butyl Glycol	99.0		%(w/w)	
Water		0.10	%(w/w)	ASTM E-203
Acidity as Acetic acid		0.01	%(w/w)	ASTM D-1613
Colour, PTCO		10		ASTM D-1209
Specific Gravity	0.9005	0.9040		ASTM D-4052
Appearance, P/F	Clear, Clean Liquid			ASTM D-2090

Comments: Physical properties are not monitored constantly.

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