

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.04.2023

Version number 1

Revision: 11.04.2023

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

- **1.1 Product identifier**
- **Trade name:** *Butyl triglycol*
- **Chemical Identification:**
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol
- **Article number:** 331
- **EINECS Number:** 907-996-4
- **Registration number** 01-2119531322-53
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Solvent for various applications*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Möller Chemie GmbH & Co. KG
Bürgerkamp 1
D-48565 Steinfurt
Tel.: 02551/9340-0
Fax: 02551/9340-60*
- **Further information obtainable from:** *Product safety department*
- **1.4 Emergency telephone number:**
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
butoxytriethylene glycol
- **Hazard statements**
H318 Causes serious eye damage.
- **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.*
 - P102 Keep out of reach of children.*
 - P103 Read carefully and follow all instructions.*
 - P280 Wear eye protection / face protection.*
 - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
 - P310 Immediately call a POISON CENTER/doctor.*
- **2.3 Other hazards**

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting

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properties.

- **Results of PBT and vPvB assessment**

- **PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

- **vPvB:**

The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:**

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Regulatory relevant ingredients:

2-(2-(2-Butoxyethoxy)ethoxy)ethanol $\geq 61\% - \leq 80\%$

CAS No.: 143-22-6, EC No.: 205-592-6, INDEX No.: 603-183-00-0

Eye Dam./Irrit. 1

H318

Specific concentration limits:

Eye Dam./Irrit. 2: 20 - < 30%

Eye Dam./Irrit. 1: \square 30%

3,6,9,12-Tetraoxahexadecan-1-ol $\geq 15\% - \leq 33\%$

CAS No.: 1559-34-8, EC No.: 216-322-1

Eye Dam./Irrit. 2

H319

- **Dangerous components:** Void

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

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

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide

carbon dioxide

- **5.3 Advice for firefighters**

- **Protective equipment:** Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, clothing.

Keep away from ignition sources.

Provide adequate ventilation.

· 6.2 Environmental precautions:

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

Do not allow to penetrate the ground/soil.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent access of air / oxygen (peroxide formation).

· Information about fire - and explosion protection:

Protect against electrostatic charges.

Electrical equipment must comply with the specified temperature classes.

Temperature classification: T3 (ignition temperature > 200 °C)

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

Requirements to be met by storerooms and receptacles: Keep containers tightly closed in a dry place.

Information about storage in one common storage facility: Store away from oxidising agents.

Further information about storage conditions: Keep container tightly sealed.

Storage class: 10

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

worker:

Long-term exposure - systemic effects, dermal: 208 mg/kg

Long term exposure - systemic effects, inhalation: 195 mg/m³, 23 ppm

Consumer:

Long-term exposure - systemic effects, dermal: 125 mg/kg

Long-term exposure - systemic effects, inhalation: 117 mg/m³

Long-term exposure - systemic effects, oral: 12.5 mg/kg

· PNECs

Fresh water: 1.5 mg/l

Sea water: 0.15 mg/l

sporadic release: 5 mg/l

Sewage treatment plant: 200 mg/l

Sediment (fresh water): 5.77 mg/kg

Sediment (seawater): 0.13 mg/kg

Soil: 0.45 mg/kg

oral intake (secondary poisoning): 111 mg/kg

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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Respiratory protection:**
Respiratory protection if ventilation is inadequate. Gas filter for organic gases/vapors (Boiling point > 65 °C, according to EN 141).
- **Hand protection**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
Nitrile rubber, NBR
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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/face protection**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** Colourless
- **Odour:** Mild
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** -45 °C
- **Boiling point or initial boiling point and boiling range** 265 - 350 °C (1.013 mbar)
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** 131 °C (ISO 2719)
- **Ignition temperature:** 202 °C (DIN 51794)
- **Decomposition temperature:** Not determined.
- **pH** Neutral
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **Dynamic at 20 °C:** 10.6 mPas
- **Solubility**
- **water:** miscible
- **Partition coefficient n-octanol/water (log value)** Not determined.

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· Vapour pressure at 20 °C:	0.002 mbar
· Density and/or relative density	
· Density at 20 °C:	0.990 - 0.998 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Particle characteristics	The substance/product is marketed or used in a non-solid or granular form.

· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
No dangerous reactions if the regulations / instructions for storage and handling are observed.
- **10.2 Chemical stability**
The product is stable if the regulations / instructions for storage and handling are observed.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with light alloys to form hydrogen.
Reactions with strong oxidizing agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if stored and handled as prescribed/indicated become.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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- **LD/LC50 values relevant for classification:**
 LD50 / oral / rat > 5170 mg/kg
 LD50 / dermal / rabbit: 3540 mg/kg
 LC50 / 8 h / inhalation / rat: 3,46 mg/l
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
 Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
 Toxicity to fish:
 LC50/96 h: 2200 - 4600 mg/l (*Leuciscus idus*)
 Toxicity in aquatic invertebrates:
 EC50/48 h > 500 mg/l (*Daphnia magna*)
 Water plants:
 EC10/72 h: 612 mg/l (*Desmodemus subspicatus*)
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR, ADN, IMDG, IATA** Void

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· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

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 SDS:** Product safety department

· **Contact:** Mrs. Steyer

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Eye Dam. 1: Serious eye damage/eye irritation – Category 1