**Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)**

Version: 1 Revision date: 16.01.2017

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

### 1.1. Product identifier

# CL-1

**CAS No.:**
**EC No.:**
**INDEX No.:**
**REACH No.:**

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

**Relevant identified uses:** washing liquid
**Uses advised against:**

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer**
pro3dure GmbH
Otto-HahnStr. 27

**Telephone:** +49(0)231 777 0605-0
**Telefax:** +49(0)231 777 0605-5

D 44227 Dortmund

**Supplier (manufacturer/importer/only representative/downstream user/distributor)**
pro3dure GmbH
Otto-HahnStr. 27

**Telephone:** +49(0)231 777 0605-0
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**Information contact**
+49(0)231 777 0605-0

**Information telephone:** +49(0)231 777 0605-0
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**E-mail (competent person):** info@pro3dure.com
**Website:**

**National contact**
pro3dure GmbH

**Information telephone:** +49(0)231 777 0605-0
**Information telefax:** +49(0)231 777 0605-5
**E-mail (competent person):** info@pro3dure.com
**Website:**

**Dept. responsible for information:**
F&E

### 1.4. Emergency telephone number

Giftnotruf Universität Mainz, www.giftinfo.uni-mainz.de

**Telephone:** +49 (0) 6131-19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008: -

Directive 67/548/EEC: -

### 2.2. Label elements

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms:**

GHS07

**Signal word:** -

**Hazard statements:** H319

**Precautionary statements:** P280, P305+P351+P338

**Classification according to Directive 67/548/EEC or 1999/45/EC**

**Hazard symbols:**

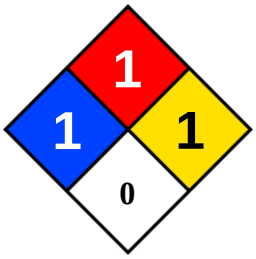
-

**R-phrases:** -R36

**S-phrases:** -S2-24-26

**Classification according to NFPA Hazard Identification System**

**Hazard symbol:**




**Health hazard:** 1

**Flammability:** 1

**Reactivity:** 1

**Special precautions:** 0

**Classification according to HMIS (Hazardous Materials Identification System)**

**Hazard symbol:**


**Health hazard:** 1

**Flammability:** 1

**Physical hazards:** 1

**Personal protective equipment:**

### 2.3. Other hazards

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

### 3.2. Mixtures

**Composition/information on ingredients**

| Stoff | EG-Nr.: | CAS-Nr.: | INDEX-Nr.: | REACH-Nr.: | concentration | EC1272/2008(CLP) | 67/548/EEC |
|---|---|---|---|---|---|---|---|
| utyldiglycol | 203-961-6 | 112-34-5 | 603-096-00-8 | | 50-100% | Eye Irrit. 2; H319 | Xi; R36 |

**Substance with a common (EC) occupational exposure limit value**

| Stoff | EG-Nr.: | CAS-Nr.: | INDEX-Nr.: | REACH-Nr.: | concentration | EC1272/2008(CLP) | 67/548/EEC |
|---|---|---|---|---|---|---|---|
| Butyldiglycol | 203-961-6 | 112-34-5 | 603-096-00-8 | | 50-100% | Eye Irrit. 2; H319 | Xi; R36 |

(Full text of R-, H- and EUH-phrases: see section 16.)

**Additional information**

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:** Take off contaminated clothing.
**Following inhalation:** Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
**Following skin contact:** Rinse skin with water/shower.
**After eye contact:** Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Consult an ophthalmologist.
**After ingestion:** Rinse mouth. Call a doctor.

**Self-protection of the first aider:**

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

**Symptoms:** Irritation, Vertigo, Breathing difficulties, Mausea, Vomitting, Diarrhoea
**Nature of Hazard:**

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

**Notes for the doctor:**
**Special treatment:**

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:** Co-ordinate fire-fighting measures to the fire surroundings, water-spray, foam, alcohol resistant, dry extinguishing powder, carbon dioxide (CO2)
**Unsuitable extinguishing media:** water jet

### 5.2. Special hazards arising from the substance or mixture

Combustible. Vapours can form explosive mixtures with air.
In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO2)

### 5.3. Advice for firefighters

**General information**

**Special protective equipment for firefighters:**
Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

**Additional information**

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Do not breath vapour / spray. Avoid contact with eyes.

### 6.2. Environmental precautions

Keep away from drains, surface and ground water.

### 6.3. Methods and material for containment and cleaning up

Covering of drains.
Absorb with liquid-binding material ( e.g. sand, diatomaceous earth, acid- or iniversal binding agents)
Place in appropriate containers for disposal. Ventilate affected areas.

### 6.4. Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8.
Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advices on safe handling**
Avoid exposure. Wash hands before breaks and after work.

**Technical measures**

**Precautions against fire and explosion**

**Additional information**

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions**
Keep container tightly closed.

**Packaging materials**

**Requirements for storage rooms and vessels**

Observe hints for combined storage.
Use local and general ventilation.

**Hints on joint storage**

**Storage class:** 10 Combustible liquids unless LGK 3A or 3B.

**Further information on storage conditions**
Recommented storage temperature: 15-25oC

## 7.3. Specific end use(s)
No information available.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

**occupational exposure limit value**

| name of agent | CAS-No | country | identifier | TWA(mg/m3) | STEL (mg/m3) | source |
|---|---|---|---|---|---|---|
| butyldiglycol | 112-34-5 | EU | IOELV | 67,5 | 101,2 | 2006/15/EC |
| butyldiglycol | 112-34-5 | GB | WEL | 67,5 | 101,2 | EH40/2005 |

**Substance with a common (EC) occupational exposure limit value**

**DNEL-/PNEC-values**
**DNEL value**

| Endpoint | Threshold level | Protection goal, Route of exposure | Used in | Exposure time |
|---|---|---|---|---|
| DNEL | 101,2 mg/m3 | human, inhalatory | worker (industry) | acute- local effects |
| DNEL | 67,5 mg/m3 | human, inhalatory | worker (industry) | chronic- local effects |
| DNEL | 83 mg/m3 | human, dermal | worker (industry) | chronic-systemic effects |
| DNEL | 67,5 mg/m3 | human, inhalatory | worker (industry) | chronic-systemic effects |

**PNEC Value**

| Endpoint | Threshold level | Environmental compartment | Exposure time |
|---|---|---|---|
| PNEC | 1,1 mg/l | freshwater | short-term (single instance) |
| PNEC | 0,11 mg/l | marine water | short-term (single instance) |
| PNEC | 200 mg/l | sewage treatment plant (STP) | short-term (single instance) |
| PNEC | 4,4 mg/kg | freshwater sediment | short-term (single instance) |
| PNEC | 0,44 mg/kg | marine sediment | short-term (single instance) |
| PNEC | 56 mg/kg | water | short-term (single instance) |
| PNEC | 0,32 mg/kg | soil | short-term (single instance) |
| PNEC | 11 mg/l | water | continuous |

**Risk management measures according to used control banding approach**

**Additional information**

## 8.2. Exposure controls
**Occupational exposure controls**

**General protection and hygiene measures**

**Personal protection equipment**
lab coat

**Respiratory protection**
Respiratory protection necessary at: Aerosol or mist formation. Type A (against organic gases and vapours with a boiling point of >65oC, colour code:Brown)
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus(BGR 190).

**Hand protection**
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resstance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
NBR (nitrile rubber, 0,4 mm)

**Eye/face protection**
Use safety goggle with side protection.

**Body protection**
lab coat

**Environmental exposure controls**

**Consumer exposure controls**

**Exposure Scenario**

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state:** | liquid |
| **Colour:** | colourless |
| **Odour:** | specific |
| **Odour threshold:** | |

**Safety relevant basis data**

| | parameter | unit | remark |
|---|---|---|---|
| **Density:** | 0,95 | g/cm3 | |
| **Bulk density:** | | | |
| **pH:** | | | |
| **Melting point/freezing point:** | -68 | oC | |
| **Initial boiling point and boiling range:** | 224-234 | oC | |
| **Flash point:** | 109 | oC | |
| **Flammability (solid, gas):** | | | |
| **Explosivity:** | | | |
| **Lower explosion limit:** | 0,7 | Vol% | |
| **Upper explosion limit:** | 5,3 | Vol% | |
| **Ignition temperature:** | | | |

**Decomposition temperature:**
**Oxidizing potential:**
**Vapour pressure:**
**Vapour density:**
**Evaporation rate:**
**Water solubility:**
**Fat solubility:**
**Soluble in:** :
**Partition coefficient: n-octanol/water:**
**Viscosity:** 5,85 mPas dyn. Visk.
**Solvent separation test:**
**Solvent content:**

## 9.2. Other information

## SECTION 10: Stability and reactivity

### 10.1. Reactivity
In case of warming: Vapours can form explosive mixtures with air.

### 10.2. Chemical stability
Conditions to avoid: Contact with air/oxygen.

### 10.3. Possibility of hazardous reactions
Violent reaction with: Aluminium, oxidisers

### 10.4. Conditions to avoid
Keep away from heat.

### 10.5. Incompatible materials
Aliminium

### 10.6. Hazardous decomposition products
Peroxides

**Additional information**

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Acute toxicity**

| Exposure route | Endpoint | Value | Species | source |
|---|---|---|---|---|
| oral | LD50 | 5.660 mg/kg | rat | TOXNET |
| dermal | LD50 | 2.700 mg/kg | rabbit | TOXNET |

**Specific symptoms in laboratory animals**

**Irritation and etching**

Irritant effect on the skin
Frequently or prolonged contact with skin may cause dermal irritation.
Irritant effect on the eye
Cause serious eye irritation.
Irritant effect on the respiratory tract
Irritation to respiratory tract.
Additional information

**Sensitization**
hall not be classified as a specific target organ toxicant.

**Repeated dose toxicity (subacute, subchronic, chronic)**
Shall not be classified as a specific target organ toxicant (repeated exposure).

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Carcinogenicity
No information available.
Germ cell mutagenicity
Not be classified.
Reproductive toxicity
Not be classified.

**General remarks**

**Practical experience/human evidence**

**Other observations**

**Other information**

## SECTION 12: Ecological information

### 12.1. Toxicity

**Toxicity**

| Endpoint | Value | Species | Source | Exposure time |
|---|---|---|---|---|
| EC50 | >100 mg/l | daphnia magna | | 48 hours |
| LC50 | 2.750 mg/l | orfe(Leuciscus idus) | | 48 hours |

### 12.2. Persistence and degradability

| Process | Degradation rate | Time |
|---|---|---|
| biotic/abiotic | 58 % | d |
| oxygen depletion | 85 % | 28 d |

The substance is readily biodegradable.
Theoretical Oxygen Demand: 2.270 mg/g
Theoretical Carbon Dioxide: 2,17 mg/mg.

### 12.3. Bioaccumulative potential

Does not significantly accumulate in organisms.
N-octanol/water (logKOW) 0,56 (25oC)

## 12.4. Mobility in soil
Data are not available.

## 12.5. Results of PBT and vPvB assessment
Data are not available.

## 12.6. Other adverse effects
Slightly hazardous to water.

**Further ecological information**

**Further details**

## SECTION 13: Disposal considerations

## 13.1. Waste treatment methods
**Appropriate disposal/Product**
This material and ist container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Appropriate disposal / Package**
This material and ist container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

**List of proposed waste codes/waste designations in accordance with EWC**

**Waste code product:**
**Waste code packaging:**

**remark**
Waste shall be separated into this categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

## 14.1. UN number
**UN No.:**

## 14.2. UN proper shipping name
**Official directive for the transport**

**Proper Shipping name**
not relevant

## 14.3. Transport hazard class(es)
**Hazard label(s):** **Classification code:**

## 14.4. Packing group

**Packing group:**

## 14.5. Environmental hazards

**Environmental hazards:** none (non-environmentally hazardous acc. To the dangerous goods regulations)

## 14.6. Special precautions for user

**Land transport (ADR/RID)**
**Remark:** There is no additional information.
**Transport category:** **Tunnel restriction code:**
**Special provisions:** **Limited quantity (LQ):**

**Sea transport (IMDG)**
**Special Provisions:**
**Remark:**
**EmS-No:** **MFAG:** **Marine pollutant:**
**Special provisions:** **Limited quantity (LQ):**

**UN proper shipping name**
**Remark:**
**Limited quantity (LQ):**

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**Remark:**

# SECTION 15: Regulatory information

**Labeling**
**Hazardous component(s) for labelling**

**Special labelling of particular preparations**

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

**EU legislation**

**Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**

**Regulation (EC) No 2037/2000 concerning materials, which cause damage to the ozone layer.**
not listed

**Regulation (EC) No. 648/2004 (Detergents regulation)**
not listed

**National regulations**
Observe in addition any national regulations!

**Restrictions of occupation**

**Storage class**
10 Combustible liquids unless LGK 3A or 3B.

**Water hazard class (WGK)**
1 weak water pollutant (WGK 1)

**Other regulations, restrictions and prohibition regulations**
Substance is listed in the following natioanl inventories: EINECS/ELINCS/NLP (Europe); REACH (Europe)

## 15.2. Chemical Safety Assessment

**For this preparation a chemical safety assessment has been carried out:**
No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

**Relevant R-, H- and EUH-phrases (Number and full text)**
**Hazard statements**
319 Causes serious eye irritation.

**R-phrases**

**Training advice**

**Recommended restrictions of use**

**Further remarks**

**Documentation of changes**

**Key literature references and sources for data**

**Abbreviations and acronyms**