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

- **1.1 Product identifier:** Grohclean
- **1.2** Relevant identified uses of the substance or mixture an uses advised against:

Relevant identified uses: detergent for fittings and bathrooms.

1.3 Details of the supplier of the safety data sheet

Supplier

Grohe AG Industrial Park Edelburg D- 58675 Hemer Phone: 0049/2372/93-0 Fax: 0049/2372/93-1322 Internet: www.grohe.com Email: info@grohe.com Email safety data sheet: sidagrohe@gmail.com

1.4 Emergency telephone number

Giftnotruf München (poison emgergency munich), 24 hours emergency number: 0049/89/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The mixture is not classified as dangerous according to regulation 1272/2008/EC.

2.2 Label elements

Label elements according to Regulation 1272/2008/EC

Pictogram and Signal word: not applicable. Hazard statements: none. Precautionary statements: none.

Weitere Kennzeichnungselemente

2.3 Other hazards

Unkonwn.

SECTION 3: Composition / information on ingredients

3.2 Substances

Composition / information on ingredients Chemical name: Citric acid

CAS-No. 5949-29-1 REACH Registration No.: 01-2119457026 -42- XXXX Quantity : 5-10% Classification: Eye Irrit. 2 Danger note: H319 Text of the listed risk phrases refer to section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

Show this safety data sheet to the doctor in attendance. Wash off with soap and plenty of water immediately. Removing all contaminated clothes and shoes. Lay the affected person down and keep him still. If unconscious, place the person in the recovery position. Protection is needed for the first aider.

Following Inhalation

Move out of dangerous area. Move to fresh air. Lay the affected person down, and keep her or him warm and calm. Obtain medical attention.

Following skin contact

Wash contaminated skin areas thoroughly with soap and water. Remove contaminated clothing. In the case of skin irritation or allergic reactions contact a doctor.

Following eye contact

Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Remove contact lenses, if applicable.

Following ingestion

Clean mouth with water and drink plenty of water. Drink 1 or 2 glasses of water. Consult a doctor.

- **4.2 Most important symptoms and delayed symptoms and effects** unknown.
- **4.3 Indication of immediate medical attention and special treatment** In case of unconsciousness: alarm emergency physician.

SECTION 5: Firefighting measures

5.1 Extingguishing media

Suitable: Use extinguishing measures that suit the environment. The product itself doesn't burn. **Avoid:** Full water jet.

5.2 Special hazards arising from the substance or mixture

5.3 Advice for firefighters

It is to prevent, that fire extinguishing water or other water-diluted products gets into surface water or drinking water reservoirs. Contaminated extinguishing water and soil must be disposed of in accordance with local regulations.

Contaminated extinguishing water and soil must be disposed of in accordance with local regulati

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not inhale vapors or spray mist . Avoid skin contact with the product. Danger of slipping on leaked product.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system . Avoid contamination of ground water through the material.

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6.3 Methods and material for containment and cleaning Soak up with absorbent material (as sand, silica gel, acid binder, universal binder). After cleaning , flush away traces with water.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures for protection against fire and explosion

Avoid contact with skin and eyes . The product is not flammable.

Measures to prevent dusts and aerosols

Do not spray the product

Measures to protect the environment

Do not use unmarked container . Do not empty into sewerage. Penetration into the soil is safe to prevent .

General hygiene measures

Store in original container only .

7.2 Conditions for safe storage, including any incompatibilities

Information on storage conditions

Requirements for storage rooms and vessels

Store in a closed original container and separate from other substances. Don't store below 0°C or above 25°C. **Storage class:** not required.

7.3 Specific end uses

No

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters no
- 8.2 Exposure controls Not required.
- 8.2.1 Appropriate engineering controls Not required.

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8.2.2 Personal protective equipment

Eye / face protection

Wear goggles with side protection when risk of splashing .

Skin protection

Gloves

The choice of protective gloves should be in accordance with the actual conditions of use and the instructions of the manufacturer must be observed. The gloves should be replaced if damaged or worn away. Tested protective gloves are to wear.

The manufacturer recommends the following glove materials : rubber gloves , nitrile

Other skin protection :

not required

Respiratory Protection

not required

Heat / cold protection

not required

8.2.3 Environmental exposure controls

Do not discharge into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

appearance - State of aggregation : liquid - Color: colorless Smell: mild pH at 20 ° C: 2.5 Melting point / freezing point: n.d. Initial boiling point and boiling range : about 100 C. Flash point: N.A. Evaporation rate: n.d. Flammability (solid, gaseous) : N.A. Upper / lower flammability or explosive limits : N.A. Vapor Pressure: n.d. Vapor Density : n.d. Relative density : 1.03 g/cm3 20 ° C Solubility (ies) : Infinitely soluble in water Partition coefficient: n.d. n-octanol/water : n.d. Auto-ignition temperature : N.A. Decomposition temperature: n.d. Viscosity: n.d. Explosive properties : N.A. Oxidising properties : not fire-propagating

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9.2 Other information no

SECTION 10: Stability and reactivity

10.1 Reactivity

When properly used, no hazardous reactions are expected.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

When used properly, no hazardous reactions are expected.

10.4 Conditions to avoid

unknown.

10.5 Incompatible materials

Not with acid-sensitive materials come into contact (as marble)

10.6 Hazardous decomposition products

No known dangerous decomposition products .

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no toxicological findings to the mixture.

Acute toxicity

Skin corrosion/irritation

Moderate skin irritation. The classification is based on substance-specific concentration limits. **Eye damage/irritation** Moderate eye irritation. The classification is based on substance-specific concentration limits. **Sensitisation to the respiratory tract** The mixture is not classified. The mixture does not contain any substances classified as sensitizing.

Carcinogenicity

The mixture is not classified. The mixture does not contain any substances classified as carcinogens.

Reproductive toxicity

The mixture is not classified. The mixture does not contain substances classified as toxic to reproduction.

Aspiration hazard

Not rated. The mixture does not contain any hydrocarbons

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SECTION 12: Ecological information

For the product (mixture) itself no data are available. Do not flush into surface water or sewerage system. Avoid pollution of ground water through the material.

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available The surfactants contained in this mixture meet the conditions of biodegradability as defined in Regulation (EC) No 648/2004 for detergents.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil no data available

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Waste Treatment Methods

Do not dispose of more than 1 liter into the waste water. Dispose of in accordance with official regulations.

Municipal wastes (household waste and similar commercial, industrial and institutional wastes), including separately collected fractions; Separately collected fractions (except 15 01); detergents other than those mentioned in 20 01 29

Uncleaned packaging

Dispose of in accordance with official regulations.

Municipal wastes (household waste and similar commercial, industrial and institutional wastes), including separately collected fractions; Separately collected fractions (except 15 01); detergents other than those mentioned in 20 01 29

Cleaned packaging

Non-contaminated and cleaned packaging can be recycled. Recommended cleansing agents: water

Waste code according to European Waste Catalogue (EWC) 20 01 30

20 01 30

special precautions

none

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SECTION 14: Transport information

14. Transport information

No hazardous materials according to transport regulations .

14.1 UN number Not applicable

14.2 Proper Shipping Name

ADR / RID not

IMDG / ICAO - TI / IATA - DGR not

14.3 Transport hazard class applicable

14.4 packing group

III (substances with low risk)

14.5 environmental hazards

Features environmentally hazardous substances

ADR / RID / IMDG / ICAO - TI / IATA -DGR : yes / no X Marine Pollutant : yes / no X

14.6 Special precautions for user

see sections 6-8

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Dispatch is carried out exclusively in packagings approved and approved by law.

SECTION 15: Regulatory information

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

EU regulations Regulation (EC) No 1005/2009 (substances which deplete the ozone layer): Not applicable Regulation (EC) No 850/2004 (Persistent organic pollutants): Not applicable Regulation (EC) No 649/2012 (Export and import of dangerous chemicals): Not applicable Regulation (EC) No 648/2004 (Detergents regulation): The product complies with the criteria laid down in regulation (EC) No 648/2004. Authorizations pursuant to Title VII of Regulation (EC) No 1907/2006: No

National regulations

Water hazard class: 1 (slightly hazardous to water), VwVwS

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15.2 Chemical safety assessment:

For this substance a chemical safety assessment is not required.

SECTION 16: Other information

16.1 Indication of changes

Changes since the last version Last Updated: 20.12.16 Sections/subsections : 7.2

16.2 Abbreviations and acronyms

N.A. = not applicablen.d. = not determined Legend of abbreviations and acronyms used in this document: ADR European Agreement concerning the International Carriage of Dangerous Goods by Road BImSchV Regulation for the implementation of the Federal Immission Control Act CAS Chemical Abstracts Service DIN standard of the German Institute for Standardization EC Effective concentration EC European Community EN European standard IATA-DGR International Air Transport Association-Dangerous Goods Regulations IBC Code International code for the construction and equipment of ships for the transport of hazardous chemicals as bulk material ICAO-TI International Civil Aviation Organization-Technical Instructions IMDG Code International Maritime Code for Dangerous Goods ISO standard of Internation Standards Organization **IUCLID** International Uniform Chemical Information Database LC Letale concentration LD Letale dose Log Kow Distribution coefficient between octanol and water MARPOL Maritime Pollution Convention = Convention for the prevention of marine pollution OECD Organization for Economic Co-operation and Development PBT Persistent, biocumulable, toxic RID Regulations for the International Rail Transport of Dangerous Goods TRGS Technical Rules for Hazardous Substances UN United Nations (United Nations) VOC Volatile Organic Compounds (volatile organic compounds) VPvB very persistent and very bioaccumulative VwVwS Administrative instructions for water polluting substances WGK Water hazard class

16.3 Key literature references and sources for data

REACH Regulation (EC) No 1907/2006, (EU) 2015/830 CLP Regulation (EC) No 1272/2008

16.4 Classification for mixtures and used evaluation method according to regulation

(EC) 1207/2008: Physical hazards: Evaluation of test data Health and environmental hazards: Calculation procedures

16.5 Relevant R-, H- and EUH-phrases

Eye Irrit. 2Irritating to eyes kategorie 2H319Causes severe eye irritation.

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16.6 Training advice 16.7 Further information

The information is based on our present knowledge, however it does not give assurances of product properties and establishes no contract legal rights.

The product is to be used exclusively for the specified purpose mentioned in the technical data sheet or to use application mentioned in the processing instructions. Existing laws and regulations must be observed by the recipient of our products at his own responsibility.