

Safety Data Sheet

According to 1907/2006/EC, Article 31

1 Identification of substance :

Product details:

Trade Name: **Purity4**

Application of the substance / the preparation: **Disinfectant**

Manufacture/Supplier:

Rein Product GmbH

Bahnhof Straße 35. 39104 Magdeburg.

Tel.: +49(0)28253783

Fax. +49(0)28253783

Email. info@reinproduct.com

Informing department: Product safety department. Phone toxicological center: +41783156838

Emergency information: info@reinproduct.com

2 Hazards identification

Hazards designation:



C Corrosive

O Oxidizing

Information pertaining to particular dangers for man and environment

The Product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R8 Contact with combustible material may cause fire

R 20/22 Harmful by inhalation and if swallowed

R34 Causes burns.

R37 Irritating to respiratory system.

.Classification system

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies .

.GHS label elements



Danger

H272 - May intensify fire; oxidizer.



Danger

H314 – Causes severe skin burns and eye damage.



Warning

H302 – Harmful if swallowed.

H332 – Harmful if inhaled.

H335 + H336 – May cause respiratory irritation. May cause drowsiness or dizziness. . Prevention:

P221 Take any precaution to avoid mixing with combustibles.

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. Response:

P303+P361+P353 IF ON SKIN (or hair): Remove/Takeoff immediately all contaminated clothing.
Rinse skin with water/shower.

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 or doctor/physician.

. Storage:

P405 Store locked up.

. Disposal:









P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition information on ingredients

. Chemical characterization: **Mixtures**

. Description: Mixture of non-dangerous ingredients and substances listed below

. Dangerous components:

CAS : 7722-84-1 EINECS : 231-765-0	hydrogen peroxide solution  C R35;  Xn R20/22;  O R8
CAS : 7761-88-8	Silver Nitrate
CAS: 64-19-7 EINECS: 200-580-7	Acetic acid  C R35 R10
CAS: 64-19-7 EINECS: 201-186-8	Peracetic acid  C R35;  Xn R20/21/22;  O R7;  N R50

4 First aid measures

. General information instantly remove any clothing soiled by the product.

. After inhalation

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

In case of unconsciousness bring patient into stable side position for transport.

. After skin Contact The product is generally no skin irritant.

. After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.

. After swallowing

instantly call for doctor.

Drink copious amounts of water and provide fresh air. Instantly call for doctor.

5 Firefighting measures

. Suitable extinguishing agents Use firefighting measures that suit the environment.

. Protective equipment: Put on breathing apparatus.

6 Acidental release measures

. Person-related safety precautions: Wear protective equipment Keep unprotected persons away.

. Measures for environmental protection: Do not allow product to reach sewage system or water bodies.

. Measures for cleaning/collecting:

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

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7 Handling and storage

- . Handling
- . Information for safe handling:
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
- . Information about protection against explosions and fires:
 - Potentially explosive when mixed with organic substances.
- . Storage
- . Requirements to be met by storerooms and containers: No special requirements. Contact with combustible material may cause fire.
- . Further information about storage conditions: Keep container tightly sealed.

8 Exposer controls

- . Additional information about design of technical systems: No further data; see item 7.
- . Components with limit values that require monitoring at the workplace:

7722-84-1 hydrogen peroxide solution

WEL (Great Britain) Short-term value: 2.8 mg/m³, 2 ppm

Long-term value: 1.4 mg/m³, 1 ppm

OEL (Ireland) Short-term value: 3 mg/m³, 2 ppm

Long-term value: 1.5 mg/m³, 1 ppm

- . Additional information: The lists that were valid during the compilation were used as basis
- . Personal protective equipment.
- . General protective and hygienic measures
 - Keep away from foodstuffs, beverages and food.
 - Take off immediately all contaminated clothing.
 - Wash hands during breaks and at the end of the work.
 - Avoid contact with the eyes and skin.
- . Breathing equipment: Use breathing protection in case of insufficient ventilation.
- . 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 mark of quality and varies from manufacturer to manufacturer. As the product is a preparation of several be checked prior to the application.
- . Penetration time of glove material
 - The exact break through time has to found out by the manufacturer of the protective gloves and has to be observed.
- . For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:
 - Butyl rubber, BR
- . For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR
- . Eye protection: Tightly sealed safety glasses.
- . Body protection: Protective work clothing.

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9 Physical and chemical properties

. Information on basic physical and chemical properties

. General Information

. Appearance:

From: Liquid

Color: Clear

. Odor: Characteristic

. PH-value at 20°C: 1-3

. Melting point / melting range: Not determined

. Boiling point/Boiling range: Not determined

. Flash point: Not Applicable

. Flammability (solid, gaseous): Not determined

. Ignition temperature: Not determined

. Self-igniting: Product is not self-igniting

. Danger of explosion: Not determined

. Vapor pressure: Not determined

. Density at 20°C: 1.1- 1.3

Solubility in / Miscibility with water: Fully miscible

Alcohols: Not determined

10 Stability and reactivity

. Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

. Dangerous product of decomposition: Possible in traces.

11 Toxicological information

. Acute toxicity:

. LD/LC50 values that are relevant for classification:

7722-84-1 hydrogen peroxide solution

Oral LD50 415 mg/kg (rat)

Dermal LD50 >5000 mg/kg (rabbit)

inchoative LC50 (4 h) > 0.17 mg/l rat)

. Primary irritant effect:

. On the skin: Strong caustic effect on skin and mucous membranes.

. On the eye: Strong irritant with the danger of severe eye injury.

. Sensitization: No sensitizing effect known.

. Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

. Information on toxicological effects

. Acute toxicity:

. LD/LC50 values relevant for classification:

LD50 (oral) is estimated to be 0, 2-2 g/kg. This value is no practical significant due to the corrosive nature of the product.

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- . **Skin contact (skin corrosion/irritation):** Caustic effect on skin and mucous membranes.
- . **Eye contact (serious eye damage/irritation):** Strong caustic effect. May cause permanent damage.
- . **Inhalation:** Severe irritant, may cause pulmonary edema.
- . **Sensitization:** No sensitizing effect known.
- . **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

13 Disposal considerations

- Product:
- . Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 - . Uncleansed packaging's:
 - . Recommendation: Disposal must be made according to official regulations.
 - . Recommended cleaning agent: Water, if necessary with cleaning agent

14 Transport information

- . Land transport AD R/RID



- . AD/RID-GGVS/E Class: 5.1 (OC1) Oxidizing substances.
- . Keller Number: 58
- . UN-Number: 2014
- . Packaging group: II
- . Label: 5.1+8
- . Designation of goods: 2014 HYDROGEN Peroxide, AQUEOUS SOLUTION
- . Tunnel restriction code: E
- . Maritime transport IMDG:



- . IMDG Class: 5.1
- . UN Number: 2014
- . Label: 5.1+8
- . Packaging group: II
- . Marine pollutant: No
- . Correct technical name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

- . Air Transport ICAO-TI and IATA-DGR:



- . ICAO/IATA Class: 5.1
- . UN/ID Number: 2014
- . Label: 5.1+8
- . Packaging group: II
- . Marine pollutant: No
- . Correct technical name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
- . UN "Model Regulation ": UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

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15 Regulatory information

. Designation according to EC guidelines:

The product has been classified and labeled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

. Code letter and hazard designation of product:



C Corrosive
O Oxidizing

. Hazard-determining components of labeling:

Hydrogen peroxide solution

. Risk phrases:

8 Contact with combustible material may cause fire.

20/22 Harmful by inhalation if swallowed.

34 Causes burns.

37 Irritating to respiratory system.

. Safety phrases:

9 Keep container in a well-ventilated place.

17 Keep away from combustible material.

20 When using do not eat or drink.

23 Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

25 Avoid contact with eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

27 Take off immediately all contaminated clothing.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

. National regulations

. Water hazard class: Water hazard class 1: Slightly hazardous for water.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant R-phrases

20/22 Harmful by inhalation and if swallowed.

35 Causes severe burns.

8 Contact with combustible material may cause fire.

. Department issuing data specification sheet: Environment protection department.

. Contact: Abteilung Labor.

. Abbreviations and acronyms:

ADR: Reglement international concern ant le transport des marchandises dangerousness par chiming de for (European Agreement concerning the International carriage of Dangerous Goods by Road).

RID: Reglement international concern ant le transport des marchandises dangerousness par chiming de fer (Regulations concerning the international Transport of Dangerous Goods by rail).

IMDG: International Maritime Code for Dangerous Goods. IATA

: International Air Transport Association .

IATA-DGR: Dangerous Goods Regulations by the "International Civil Aviation Organization "(ICAO).

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent.

* Data compared to the previous version altered.