

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**

- **Trade name:** MERCURISORB-ROTH®

- **Article number:** 9461

- **Application of the substance / the preparation** Laboratory chemical

- **Manufacturer/Supplier:**

Carl Roth GmbH & Co.KG

Schoemperlenstraße 1-5

76185 Karlsruhe

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

- **Further information obtainable from:** Product safety department.

- **Information in case of emergency:**

Giftinformation München

Telefon: +49/(0)89 19240

Telefax: +49/(0)89 41402467

## 2 Composition/information on ingredients

- **Chemical characterization**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 7631-86-9      silicon dioxide, chemically prepared

40 - 60%

EINECS: 231-545-4

CAS: 7761-88-8      silver nitrate

20 - 40%

EINECS: 231-853-9  C,  N; R 34-50/53

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

## 3 Hazards identification

- **Hazard description:**



C Corrosive

N Dangerous for the environment

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

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

R 34 Causes burns.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Additional information:**

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

## 4 First-aid measures

- **General information:**

Immediately remove any clothing soiled by the product.

General advice: No induce of vomiting by layman.

- **After inhalation:** Supply fresh air and to be sure call for a doctor.

- **After skin contact:**

Immediately rinse with water.

If skin irritation continues, consult a doctor.

- **After eye contact:** Rinse opened eye for 10 minutes under running water. Then consult a doctor.

- **After swallowing:**

Do not induce vomiting; call for medical help immediately.

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Rinse out mouth and then drink water.

### 5 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
  - nitrous gases
  - Oxidising.
  - Keep away from flammable substances.
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.

### 6 Accidental release measures

- **Person-related safety precautions:**
  - Wear protective equipment. Keep unprotected persons away.
  - Avoid formation of dust.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
  - Pick up mechanically.
  - Dispose contaminated material as waste according to item 13.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Handling corresponding to laboratory safety guidelines.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**
  - Store away from foodstuffs.
  - Store away from flammable substances.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**
  - 7761-88-8 silver nitrate
  - OES Long-term value: 0.01 mg/m<sup>3</sup>
  - (as Ag), ILV
- **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:** when dusts are generated

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· **Protection of hands:**



Protective gloves

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

· **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. 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 protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Self-igniting:** Product is not self-igniting.

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

· **Density at 20°C:** ~ 2.2 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Partly soluble.

· **pH-value (100 g/l) at 20°C:** 6

### \* 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** heating

· **Materials to be avoided:**

Nonmetals, inflammable organic materials, alkali hydroxides, ethanol, magnesium powder.

· **Dangerous reactions** No information available.

· **Dangerous decomposition products:** Nitrogen oxides

### 11 Toxicological information

· **Acute toxicity:**

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

7761-88-8 silver nitrate

Oral LD50 1173 mg/kg (rat)

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- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **after inhalation:** Irritations in the respiratory tract.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** After swallowing nausea and vomiting.

### 12 Ecological information

- **Ecotoxic effects:**
- **Acquatic toxicity:** Quantitative data on the ecological effect of this product are not available.
- **Remark:**  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Do not allow to enter waters, waste water, or soil!
- **General notes:**  
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even extremely small quantities leak into the ground.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

### 14 Transport information

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



- **ADR/RID class:** 5.1 Oxidizing substances.
- **Danger code (Kemler):** 50
- **UN-Number:** 1493
- **Packaging group:** II
- **Hazard label** 5.1
- **Description of goods:** 1493 SILVER NITRATE

- **Maritime transport IMDG:**



- **IMDG Class:** 5.1
- **UN Number:** 1493
- **Label** 5.1
- **Packaging group:** II
- **EMS Number:** F-A,S-Q

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· **Proper shipping name:** SILVER NITRATE· **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 5.1
- **UN/ID Number:** 1493
- **Label** 5.1
- **Packaging group:** II
- **Proper shipping name:** SILVER NITRATE

### 15 Regulatory information

- **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:**

C Corrosive  
N Dangerous for the environment

- **Hazard-determining components of labelling:**

silver nitrate

- **Risk phrases:**

34 Causes burns.  
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

1/2 Keep locked up and out of the reach of children.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
60 This material and its container must be disposed of as hazardous waste.

- **National regulations:**

- **Information about limitation of use:** In dealing with chemicals the national laws must be observed.

- **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

### 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.

- **Relevant R-phrases**

34 Causes burns.  
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Department issuing MSDS:** Environment protection department.

- **Contact:** Herr Hahn

- **\* Data compared to the previous version altered.**