

## \* 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name: **MERCURISORB-ROTH®**

Article number: 9461

#### Registration number

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.

#### Application of the substance / the preparation

Laboratory chemical

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

#### Manufacturer/Supplier:

Carl Roth GmbH + Co. KG

Schoenperlenstraße 3-5

76185 Karlsruhe

Germany

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

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

E-Mail: sicherheit@carlroth.de

Further information obtainable from: Department Health, Safety and Environment

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## \* 2 Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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

C; Corrosive

R34: Causes burns.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 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

GHS09

Signal word Danger

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**Hazard-determining components of labelling:**

silver nitrate

**Hazard statements**

H314 Causes severe skin burns and eye damage.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

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.

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

**2.3 Other hazards**

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

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3 Composition/information on ingredients**

**3.2 Chemical characterization: Mixtures**

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

<b>Dangerous components:</b>		
CAS: 7631-86-9 EINECS: 231-545-4	Silicon dioxide	40 - 60%
CAS: 7761-88-8 EINECS: 231-853-9 Index Number: 047-001-00-2	silver nitrate C R34; O R8; N R50/53 Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	10-25%

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

**4 First aid measures**



**4.1 Description of first aid measures**

**General information:**

Immediately remove any clothing soiled by the product.

**After inhalation:**

After inhalation of dusts:

Supply fresh air.

Seek medical treatment in case of complaints.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues:

Seek medical treatment.

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**After eye contact:**

Rinse immediately for 15 minutes with plenty of water with the eyelid held wide open. Seek medical advice.

**After swallowing:**

Rinse out mouth and then drink water.

Seek medical treatment.

**4.2 Most important symptoms and effects, both acute and delayed**

Irritation and corrosion

Coughing

Breathing difficulty

**Hazards** blindness

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

No further relevant information available.

**5 Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

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

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:

nitrous gases

**5.3 Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

**Additional information** Prevent fire-fighting water from entering surface water or groundwater.

**6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Avoid contact with the eyes and skin.

Do not breathe dust.

**6.2 Environmental precautions**

Do not allow product to reach sewage system or any water course.

**6.3 Methods and material for containment and cleaning up**

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

**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.

**7 Handling and storage**

**7.1 Precautions for safe handling**

Handle and open container with care.

Prevent formation of dust.

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**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

**Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from flammable substances.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in dry conditions.

Protect from exposure to the light.

**7.3 Specific end use(s)**

No further relevant information available.

**8 Exposure controls/personal protection**

**Additional information about design of technical facilities:**

No further data; see item 7.

**8.1 Control parameters**

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

**7761-88-8 silver nitrate**

WEL (Great Britain)	Long-term value: 0.01 mg/m <sup>3</sup> as Ag
IOELV (EU)	Long-term value: 0.01 mg/m <sup>3</sup> as Ag

**Additional information:**

The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Do not breathe dust.

Wash hands before breaks and at the end of work.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**Respiratory protection:**



Required when dusts are generated: filter P2.

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**Protection of hands:**



Protective gloves

Check protective gloves prior to each use for their proper condition.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Nitrile, thickness >0,3 mm.

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**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Powder
<b>Colour:</b>	Light grey
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	No information available.

<b>pH-value:</b>	No information available.
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**Change in condition**

<b>Melting point/Melting range:</b>	No information available.
<b>Boiling point/Boiling range:</b>	No information available.

<b>Flash point:</b>	Not applicable.
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<b>Flammability (solid, gaseous):</b>	No information available
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<b>Ignition temperature:</b>	No information available
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<b>Decomposition temperature:</b>	No information available
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<b>Self-igniting:</b>	No information available
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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<b>Explosion limits:</b>	
Lower:	No information available.
Upper:	No information available.
<b>Oxidizing properties:</b>	Product contains oxidising ingredients.
<b>Vapour pressure:</b>	No information available
<b>Density:</b>	No information available.
<b>Relative density</b>	No Information available.
<b>Vapour density</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Solubility in / Miscibility with water:</b>	No information available.
<b>Partition coefficient (n-octanol/water):</b>	No information available
<b>Viscosity:</b>	
Dynamic:	No information available.
Kinematic:	No information available.
<b>9.2 Other information</b>	No further relevant information available.

## \* 10 Stability and reactivity

### 10.1 Reactivity See section 10.3

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

### 10.3 Possibility of hazardous reactions

#### Strong reaction possible with:

Aldehydes  
halogen oxides  
Halogenated hydrocarbon  
alkali hydroxides  
carbides  
sodium  
organic combustible substances  
organic nitro compounds

### 10.4 Conditions to avoid

Exposure to light

### 10.5 Incompatible materials:

No information available.

### 10.6 Hazardous decomposition products:

In case of fire: see item 5.

## \* 11 Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

**LD/LC50 values relevant for classification:** Quantitative data on the toxicity of this product are not available.

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**Primary irritant effect:**

**on the skin:**

Caustic effect on skin and mucous membranes.

**on the eye:**

Burns, risk of blindness.

**after inhalation:**

Irritations in the respiratory tract, coughing, dyspnoea.

**Sensitization:**

No sensitizing effects known.

**CMR effects:**

**Germ cell mutagenicity:**

No known significant effects or critical hazards.

**Carcinogenicity:**

No known significant effects or critical hazards.

**Reproductive toxicity:**

No known significant effects or critical hazards.

**Aspiration hazard:**

No aspiration toxicity classification.

**Specific target organ toxicity - single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**11.2 Further information:**

The product should be handled with the care usual when dealing with chemicals.

**Additional toxicological information:**

**After swallowing:**

irritations in the mouth, throat, oesophagus, gastrointestinal tract.

Nausea

Vomiting

**12 Ecological information**

**12.1 Toxicity**

**Aquatic toxicity:**

Quantitative data on the ecological effect of this product are not available.

**12.2 Persistence and degradability**

No further relevant information available.

**12.3 Bioaccumulative potential**

No further relevant information available.

**12.4 Mobility in soil**

No further relevant information available.

**Ecotoxicological effects:**

**Remark:**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do not allow to enter waters, waste water, or soil!

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**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects**

No further relevant information available.

**\* 13 Disposal considerations**

**13.1 Waste treatment methods**

**Recommendation**

This material and its container must be disposed of as hazardous waste.

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**

**14.1 UN-Number**

ADR, IMDG, IATA

UN3260

**14.2 UN proper shipping name**

ADR

3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SILVER NITRATE), ENVIRONMENTALLY HAZARDOUS

IMDG

CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SILVER NITRATE), MARINE POLLUTANT

IATA

CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SILVER NITRATE)

**14.3 Transport hazard class(es)**

ADR, IMDG



Class  
Label

8 Corrosive substances.  
8

IATA



Class  
Label

8 Corrosive substances.  
8

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<b>14.4 Packing group</b>	
ADR, IMDG, IATA	II
<b>14.5 Environmental hazards:</b>	
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
<b>14.6 Special precautions for user</b>	Warning: Corrosive substances.
Danger code (Kemler):	80
EMS Number:	F-A,S-B
Segregation groups	Acids
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
ADR	
Limited quantities (LQ)	1 kg
Transport category	2
Tunnel restriction code	E
UN "Model Regulation":	UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SILVER NITRATE), ENVIRONMENTALLY HAZARDOUS, 8, II

## \* **15 Regulatory information**

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

#### **National regulations:**

**Information about limitation of use:** Employment restrictions concerning juveniles must be observed.

#### **Waterhazard class:**

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

### **15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been carried out.

## **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 phrases**

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

R34 Causes burns.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R8 Contact with combustible material may cause fire.

**Department issuing MSDS:** Department: Health, Safety and Environment

**Contact:** Frau Weckemann

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**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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LD50\*: Lethal Dose, 50 percent (Not relevant for classification)

LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)

\* Data compared to the previous version altered.

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