

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 25.08.2007

Revision: 25.08.2007

1 Identification of substance:

- **Product details:**
- **Trade name:** Copper Sulfate solution 0.1 mol/l
- **Article number:** 7251

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

Chemicals for synthesis
Laboratory chemicals

- **Manufacturer/Supplier:**

Mallinckrodt Baker B.V
P.O.Box 1
7400 AA Deventer
The Netherlands

Tel(+31)(0) 570-687500
Fax(+31)(0) 570-687574
E-mail : jtbaker.nl@covidien.com

- **Informing department:**

Quality Systems & Regulatory Affairs
E-mail : sjors.duteweert@covidien.com

- **Emergency information:**

Environment Health & Safety department
during normal opening times (8 am till 5.30 pm) tel: (+31)(0) 570 687500

2 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment**
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **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.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 7758-98-7	Copper (II) Sulfate Anhydrous	Xn, Xi, N; R 22-36/38-50/53	< 2.5%
EINECS: 231-847-6			

- **Additional information**

For the wording of the listed risk phrases refer to section 16.
No Sulfuric Acid used.

4 First aid measures

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** The product is not skin irritating.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing**
Rinse out mouth
Seek medical treatment.

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5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **Special hazards caused by the material, its products of combustion or flue gases:** Sulphur dioxide (SO₂)
- **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Inform respective authorities in case product reaches water or sewage system.
Dilute with plenty of water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

- **Handling**
- **Information for safe handling:** No special precautions necessary if used correctly.
- **Information about protection against explosions and fires:** no special requirements
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** + 15°C - +25°C

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures** Wash hands during breaks and at the end of the work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
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 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:** Safety glasses recommended during refilling.

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· **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· **General Information**

Form: Fluid
Colour: Light blue
Smell: Odourless

· **Change in condition**

Melting point/Melting range: 0°C
Boiling point/Boiling range: 100°C

· **Flash point:** n/a
· **Self-inflammability:** Product is not selfigniting.
· **Danger of explosion:** Product is not explosive.

· **Steam pressure at 20°C:** 23.0 hPa
· **Density at 20°C:** 1.0 g/cm³
· **Solubility in / Miscibility with Water:** Fully miscible
· **pH-value at 20°C:** 4.2

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** Heat,boiling teperatures.
· **Materials to be avoided:**
· **Dangerous reactions** No dangerous reactions known
· **Dangerous products of composition:** No dangerous decomposition products known

11 Toxicological information

· **Acute toxicity:**

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

7758-98-7 Copper (II) Sulfate Anhydrous

Oral	LD50	300 mg/kg (rat)
	LDLo	50 mg/kg (Human)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** redness
· **Sensitization:** No sensitizing effect known.

12 Ecological information:

· **Ecotoxical effects:**

· **Acquatic toxicity:**

LC50	0.8 mg/l (Fish)
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· **Remark:** Harmful to fish

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· **General notes:**

*Water hazard class (D) 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Harmful to aquatic organisms*

13 Disposal considerations

· **Product:**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** *Disposal must be made according to official regulations.*

· **Recommended cleaning agent:** *Water, if necessary with cleaning agent.*

14 Transport information

· **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

· **ADR/RID-GGVS/E Class:** *not regulated*

· **Maritime transport IMDG/GGVSea:**

· **Marine pollutant:** *Yes*

15 Regulatory information

· **Designation according to EC guidelines:**

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

· **Risk phrases:**

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

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**

22 Harmful if swallowed.

36/38 Irritating to eyes and skin.

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

· **Department issuing data specification sheet:** *Quality Assurance Department*

· **Contact:** *Sjors duteweert*

· *** Data compared to the previous version altered.**