

Safety Data Sheet

According to EC Directive 91/155/EEC

Date of issue:
Supersedes edition of

12.10.2004
07.08.2003

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

Identification of the product

Catalogue No.: 814815

Product name: Sodium chlorite (25% solution in water) for synthesis

Use of the substance/preparation

Chemical for synthesis

Company/undertaking identification

Company: Merck Schuchardt OHG * 85662 Hohenbrunn * Germany *
Tel: +49 8102/802-0

Emergency telephone No.: Please contact the regional Merck representation
in your country.

2. Composition/information on ingredients

Aqueous solution.
Thoroughly tested preparation.

3. Hazards identification

Harmful if swallowed. Contact with acids liberates very toxic gas. Risk of serious damage to eyes.

4. First aid measures

After inhalation: fresh air.
After skin contact: wash off with plenty of water. Remove contaminated clothing.
After eye contact: rinse out with plenty of water with the eyelid held wide open. Immediately call
in ophthalmologist.
After swallowing: immediately make victim drink plenty of water. Call in physician.

5. Fire-fighting measures

Suitable extinguishing media:
In adaption to materials stored in the immediate neighbourhood.

Special risks:
Non-combustible. Ambient fire may liberate hazardous vapours. The following may develop in event of
fire: hydrochloric acid.

Special protective equipment for fire fighting:
Do not stay in dangerous zone without self-contained breathing apparatus. In order to
avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Other information:
Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or
groundwater.

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6. Accidental release measures

Person-related precautionary measures:
Avoid substance contact. Do not inhale vapours/aerosols. Ensure supply of fresh air in enclosed rooms.

Environmental-protection measures:
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:
Take up with liquid-absorbent material (e.g. Chemizorb®). Forward for disposal. Clean up affected area.

7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. At +15°C to +25°C.

8. Exposure controls/personal protection

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when vapours/aerosols are generated.

Eye protection: required

Hand protection: In full contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

In splash contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 741 Dermatril® L (full contact), 741 Dermatril® L (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Industrial hygiene:

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

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9. Physical and chemical properties

| | |
|----------------------|--|
| Form: | liquid |
| Colour: | colourless |
| Odour: | |
| pH value | not available |
| Melting point | not available |
| Boiling point | ~ 100 °C |
| Ignition temperature | not available |
| Flash point | not available |
| Explosion limits | lower not available upper not available |
| Density | (20 °C) 1.21 g/cm ³ |
| Solubility in Water | not available |

10. Stability and reactivity

Conditions to be avoided

Heating.

Substances to be avoided

acids, combustible substances, cyanides, sulfur, ammonium compounds, metals in powder form, phosphorus, organic substances, oxidizable substances, chlorine.

Hazardous decomposition products

in the event of fire: See chapter 5.
chlorine dioxide (with acids).

11. Toxicological information

Acute toxicity

LD₅₀ (oral, rat): 1136 mg/kg (25% solution).

Further toxicological information

Property that must be anticipated on the basis of the components of the preparation:

After inhalation of vapours/aerosols: mucosal irritations, coughing, dyspnoea.

After skin contact: Slight irritations.

After eye contact: Risk of serious damage to eyes.

After swallowing: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Further data

Further hazardous properties cannot be excluded.

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

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12. Ecological information

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

Further ecologic data:
Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under www.retrologistik.de you will find country- and substance-specific information as well as contact partners.

Packaging:

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under www.retrologistik.de you will find special information on the respective national conditions as well as contact partners.

14. Transport information

Road & Rail ADR, RID

UN 1908 CHLORITLOESUNG, 8, II

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 1908 CHLORITE SOLUTION, 8, II

Ems F-A S-B

Air CAO, PAX

CHLORITE SOLUTION, 8, UN 1908, II

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

15. Regulatory information

Labelling according to EC Directives

| | | |
|------------|----------------|---|
| Symbol: | Xn | Harmful |
| R-phrases: | 22-32-41 | Harmful if swallowed. Contact with acids liberates very toxic gas. Risk of serious damage to eyes. |
| S-phrases: | 14-26-36/37/39 | Keep away from . In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. |

Reduced labelling (1999/45/EC, Art. 10, 4)

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16. Other information

Reason for alteration

Chapter 7: storage conditions.

General update.

Regional representation:

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.