

Material Safety Data Sheet

Filtration · Testing · Chromatography · Bioanalysis
Filterieren · Testen · Chromatographie · Bioanalytik

according to EC Directive 1907/2006/EC

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Version: 2.6.1

1. Identification of the substance/ mixture and company

1.1 Identification/product name

VISOCOLOR® HE Manganese Reagent Mn-1
REF/Cat. No. 920055

1.2 Use of the substance/ mixture

Product for analytical use (RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0)

1.3 Manufacturer MACHEREY-NAGEL GmbH & Co. KG
Neumann-Neander-Strasse 6-8, D-52355 Dueren**Information from** MACHEREY-NAGEL GmbH & Co. KG
☎ +49 (0)2421 969 0 e-mail: msds@mn-net.com

1.4 Emergency telephone

DE: Gemeinsames Giftinformationszentrum (GGIZ), D-99089 Erfurt, ☎ +49 (0)361 730 730

Outside Germany (DE):

Call your regional Poisons Information Service or call local Life Saving Service.

2. Hazards identification

2.1 Hazard description

Irritant substance/mixture

Symbol: Xi

Subsidiary symbol:

Hazard symbols

Causes varying degrees of irritation on the skin, to the eyes and to the mucous membranes depending on the concentration, temperature and the exposure time. Vapours especially those which stem from hot liquids and mist can have an irritant effect upon the eyes and the mucous membranes.

No labelling, if quantity below 25 g or ml per bottle (certificate of exemption concerning 67/548/EEC Art. 25, 1999/45/EC Art. 12 and German GefStoffV § 20 (3)), and TRGS 200 7.1)

Substances/preparations (Xi) with phrase R42 or R43 are generally labelled.

2.2 Information pertaining to particular dangers to human and the environment

3. Composition/Information on ingredients

Chemical characterisation

Substance(s): Formaldoxime solution 10% ($\text{CH}_3\text{NO}\cdot\text{H}_2\text{O}$)**CAS No.:** 75-17-2**EC No.:** -**INDEX No.:** n.n.**R reference:** 36/38**S reference:** 24/25

4. First aid measures

4.1 First aid instructions

Ensure quiet, warmth, and provide resuscitation if necessary. Take to a doctor, in a raised position if there are breathing difficulties.

Following inhalation of vapours:

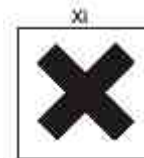
Fresh air should be inhaled, keeping the airways clear. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary.

After contact with skin:

Rinse the affected skin or mucous membrane thoroughly with water. If necessary, apply a loose dressing.

After contact with the eyes:

Rinse thoroughly for min. 10 minutes under running water with the eyelid wide open. Before (if possible)



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apply eye drops Proxymetacaine 0.5 %, if the opening the eyelid convulsion is painful. Then apply a loose bandage. Further treatment must to be carried out by an eye specialist.

After oral intake:

Lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. In the event of respiratory distress ensure that the patient inhales oxygen.

4.2 Further medical treatment/attention

Rapid initiation or continuation of the measures to counter respiratory tract irritation following inhalation. Administer a Dexamethason spray, relieve the cough with Codein. In the event of the inhalation of larger quantities of the substance administer a prophylaxis to counter pulmonary oedema. In the event of respiratory distress use breathing apparatus or if necessary supply oxygen. Be careful when inducing vomiting and washing out the stomach, use Glauber's salt with gruel as a laxative.

4.3 Specific means of treatment which should always be available at the workplace

An eye bath or spray should be provided at the workplace.

5. Fire-fighting measures

5.1 Suitable extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area.

5.2 Hazards, combustion products/gases

Beware of formation of hazardous and caustic vapours.

5.3 Special protective equipment required

Use only acid-resistant safety equipment. Protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

5.4 Additional information

The substance itself is not flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting. Spray any vapours released with water. The extinguishing water may cause an acid or alkaline reaction. Only use equipment which is resistant to chemicals.

6. Accidental release measures

6.1 Personal precautions

Do not breathe vapour. Wear suitable protective gloves and eye protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions.

6.2 Methods of cleaning-up

Bind any escaping liquid with universal binder and dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water.

7. Handling and storage

7.1 Handling

In accordance with the testing instructions, that comes with the product. Use a safety bottle when shaking test tubes. The original product package allows a safe handling.

7.2 Storage

The original product package of MACHEREY-NAGEL allows a safe storage. Keep packages tightly closed during handling and storage, and store in a well-ventilated place at max. 25 °C, away or preferably separate from substances with which a hazardous reaction could take place, so that they are not immediately accessible to outside parties.

Storage class (German chemical industry): 12

8. Exposure controls/personal protection

8.1 Exposure limit values

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TRGS 500

8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

Respiratory protection: see 7.2

Hand protection: yes, gloves acc. EN 374

Eye protection: yes, safety glasses

Skin protection: yes, recommended

Personal hygiene:

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

9. Physical and chemical properties

9.1 General information

Appearance: liquid or solid

Colour:

Odour:

9.2 Important health, safety and environmental information

pH when supplied: 5-7

Melting point [°C]: -

Boiling point [°C]: -

Relative density: (at 20 °C) - g/cm³

Solubility in water: (at 20 °C) 0-100%

10. Stability and reactivity

10.1 Conditions to avoid not necessary

10.2 Materials to avoid not necessary

10.3 Hazardous decomposition products

For safety separation the reagents should be stored in the original package. Decompositions are not observed during the expiration period under recommended conditions (see instruction leaflet).

11. Toxicological information

11.1 Toxicological effects

Irritant hazardous substances generally cause inflammations in the event of brief, more sustained or repeated contact with the skin or the mucous membranes.

11.2 Toxicological tests

Corrosive effects: not observed

Irritant effects: yes

Effects after multiple exposition: not observed

Carcinogen/mutagen effects:

Other effects:

LD₅₀ oral rat

LC₅₀

LD₅₀

12. Ecological information

12.1 Ecotoxicity

The potential effect of a single package on the environment is considerably low. Hazardous to drinking water, if large amounts enter the subsoil and waters.

13. Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on disposal (waste code number 16 05 06). Small amounts – diluted with water - can empty into drains.

14. Transport information

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Proper shipping name: Chemical Kit
UN No.: 3316 **Class:** 9 **Packaging group:** II
Commercial transport -
- road/railway ADR/RID **Class Code:** M11, ADR 3.3.1/251: LQ 7 = 10 kg
Maritime transport: IMDG **EmS:** F-A,S-P
Air transport: IATA-DGR PAX+CAO 915
Other data: For the declaration as **chemical kit** the total quantity of dangerous goods in any one outer package must not exceed 10 kg.

Alternative transport information

Transport name: Corrosive liquid, acidic, organic, n.o.s. (formaloxime solution)
UN No: 3265 **Class:** 8 **Packaging group (PG):** III
- road ADR **Cl.Code:** C3, LQ 7 = 5 L/ 30 kg

15. Regulatory information

15.1 Labelling

No labelling, if quantity below 25 g or ml per bottle (exemption for small quantities)

Code: Xi **Subsidiary Code:**

Description: Irritant

Constituents which are crucial to the hazard: Formaldoxime solution 10%

R reference: 36/38 **S reference:** 24/25

15.2 International and national regulations

1. European Community Directive 67/548/EEC governing the classification, packaging and labelling of dangerous substances, including Adaptation to Technical Progress (ATP), 2006/121/EC
2. German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on May 2008
3. German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on December 2004, according to Directive 98/24/EC
4. Directive 1998/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
5. Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
6. Regulation (EC) 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
7. TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated February 2007
8. Announcement 220 (DE), Safety Data Sheet, September 2007
9. TRGS 900, German engineering rules governing limits in air at work, updated January/December 2006
10. SUVA.CH, Limits in air at work 2009, revised on 01.2009

15.3 Other national regulations

DE: Water hazard class: WGK 1

16. Other information

R references

R 36/38 Irritating to eyes and skin

S references

S 24/25 Avoid contact with skin and eyes

Recommended usage and restriction: only for trained staff

An individual package of this product or of this test kit has considerably less hazardous potential.

You find our current versions of MSDS in Internet:

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www.mn-net.com link "Services"

Bibliographical sources

KÜHN, BIRETT: Merkblätter Gefährliche Arbeitsstoffe GM 10-02
(Data Sheets of Hazardous Substances)

Reason for alteration: REACH Regulation 1907/2006/EC, RIP 3.2

Further information from

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