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1 Identification of the substance/mixture and of the company/undertaking

· Informations to product No. 2412

· Product name:

Mangansulfat-Monohydrat

Mangani sulfas monohydricus

Manganese sulfate

· Supplier of the Product / responsible Company:

Caesar & Loretz GmbH

Herderstr. 31

40721 Hilden

Tel.: 02103/4994-0

Fax: 02103/32360

e-mail: info@caelo.de

· Emergency telephone:

Giftinformationszentrum Mainz

Langenbeckstr. 1, 55131 Mainz

Tel.: 06131/19240

· Relevant identified uses of the substance or mixture and uses advised against:

No further relevant information available.

· Application of the substance / mixture:

Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

2 Hazards identification

· GHS-Labeling Elements:



· Signal word: Warning

· H-Phrases:

H373 May cause damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects


· P-Phrases:

P314 Get Medical advice/attention if you feel unwell

P273 Avoid release to the environment

STOT RE 2

Aquatic Chronic 2

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3 Composition / information on ingredients

• **Chemical characterization:**

CAS-No. Substance name

10034-96-5 Mangansulfat-Monohydrat

• **EINECS-No.:** 232-089-9

• **Index-No.:** 025-003-00-4

• **REACH Reg. No.:** 01-2119456624-35-0000

• **INCI-Name:** -

4 First aid measures

- **after inhalation:** Bring the person out of the contaminated area to fresh air, Seek medical help immediately. Show product-label or this MSDS.
- **after skin contact:** Take off contaminated clothes and shoes, wash immediately with plenty of water and soap.
- **after eye contact:** Rinse out with plenty of water with the eyelid wide open. Call in ophthalmologist.
- **after swallowing:** Drink water. Induce vomiting. Seek medical advice.

5 Fire-fighting measures


- **Suitable extinguishing media:** All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- **Specific hazards during fire fighting:** Not combustible. In case of fire dangerous gases / vapours can be released: Sulphur oxides.
- **Special protective equipment for fire-fighters:** Suitable protective clothes and respiratory protection.
- **Additional information:** Prevent fire extinguishing water from contaminating surface water, the ground water system or soil. Residues must be deposited according to local regulations.

6 Accidental release measures:

- **Personal protective measures:** Avoid dust formation and contact with substance.
- **Environmental protective measures:** Prevent from entering into drains.
- **Methods for cleaning:** Take up dry. Disposal according to Chapter 13 of this MSDS. Clean up with water.

7 Handling and storage

- **Handling:** No special requirements.
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).

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8 Exposure controls / personal protective equipment

Components with limit values that require monitoring at the workplace:

TRGS 900 Manganese and its inorganic compounds: AGW 0,5 mg/m³

- **Personal protective equipment:**
- **General protective and hygiene measures:** The usual precaution measures during handling of chemicals are to observe.
- **Respiratory protection:** Dust protection mask.
- **Hand protection:** Protection gloves of latex or rubber.
- **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Form:** solid
- **Colour:** light pink
- **Odour:** odourless
- **Melting point / melting range:** 117 °C monohydrate, 700 °C anhydrous substance.
- **Decomposition temperature:** >117 °C (Release of crystal water)
- **Density:** (20 °C) 2,95 g/cm³
- **Bulk density:** ca. 1000-1200 kg/m³
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 762 g/l
- **pH-range:** (20 °C, 50g/l) 3,0 - 3,5

10 Stability and reactivity


- **Materials to avoid:** None. Avoid strong heating (Release of crystal water).
- **Hazardous reactions:** No hazardous reactions known.
- **Hazardous decomposition products:** None.

11 Toxicological information

- **Acute toxicity:** LD50(oral, Rat): 2150 mg/kg (anhydrous Substance)
- **Primary irritating effect:**
- **after swallowing:** Irritations of mucous membranes in Mouth, Throat, Esophagus, Gastrointestinal tract. Illness, Vomiting, Abdominal pain, Diarrhea.
- **Sub-acute / chronic toxicity:** After inhalation of dust: Tissue damage, pneumonia. Bacterial mutagenity (Ames-Test): negative.

12 Ecological information

- **Aquatic toxicity:** For sulfates generally: Fishes: toxic above 7 g/l; Bacteria: toxic above 2,5 g/l. Fish toxicity: Pimephales promelas LC50: 30,6 mg/l/96h (Anhydrous substance)
- Daphniatoxizität: Daphnia magna EC50: 8,3 mg/l/48h (Anhydrous substance)
- **Water hazard class:** 2 (VwVwS): hazardous for water.

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13 Disposal considerations

- **Product:**
- **Recommendation:** Disposal according to local regulations as pharmaceutical waste or inorganic laboratory chemicals.
- **Empty contaminated packaging:**
- **Recommendation:** Disposal according to the local regulations.

14 Transport informations

- **Land transport according to ADR:**
- **Proper shipping name:** Environmentally hazardous substance, solid, n.o.s., Manganese(II)-sulfate
- **Class:** 9
- **UN-number:** 3077
- **Packing group:** III
- **Classification code:** M7
- **Limited quantities (Table 3.4.6. ADR):** 5 kg
- **Hazard classification number:** 90
- **Special provisions (Chapter 3.3 ADR):** 274
- **Additional informations for sea transport IMDG:**
- **EMS-No.:** F-A, S-F
- **Properties:** m.p.

15 Regulatory information

- **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**
The product is classified and labelled according to GHS-regulations.
- **Hazard symbols:** GHS08, GHS09
- **Signal word:** Warning
- **H-Phrases:**
H373 May cause damage to organs through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects
- **P-Phrases:**
P314 Get Medical advice/attention if you feel unwell
P273 Avoid release to the environment
- **National regulations (Germany):**
- **Water hazard class:** see chapter 12
- **Storage class TRGS 510:** 13

16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

- **Reason for last revision:** Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.