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

· **Informations to product No. 2652**

· **Product name:**

Schwefel, gereinigt

Sulfur, purified

Sulfur depuratum

· **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:**

H315 Causes skin irritation

· **P-Phrases:**

P302 IF ON SKIN:

P352 Wash with plenty of soap and water

Skin Irrit. 2

3 Composition / information on ingredients

· **Chemical characterization:**

CAS-No. Substance name

7704-34-9 Sulphur

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- **EINECS-No.:** 231-722-6
- **REACH Reg. No.:** 01-2119487295-27-0000
- **INCI-Name:** Sulfur

4 First aid measures

- **After inhalation:** Fresh air. If feeling unwell seek medical advice.
- **After skin contact:** Wash away with water and soap. Seek medical advice.
- **After eye contact:** Rinse out with water.
- **After swallowing:** Do not induce vomiting. Rinse mouth with water. Seek medical advice. Show label or this MSDS.

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:** Combustible. In case of fire dangerous vapours/gases can be generated: 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:** wear personal protective equipment. Avoid dust formation. Avoid inhaling dust. Good ventilation of working place. Keep away from ignition sources.
- **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:**
- **Informations to fire or explosion protection:** Avoid generating dust and aerosols. Good ventilation if dust is generated. Keep away from ignition sources. Do not smoke. Take measures against electrostatic charging.
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).

8 Exposure controls / personal protective equipment

Components with limit values that require monitoring at the workplace:

The product does not contain relevant quantities of substances with limit values that require monitoring at the workplace.

- **Personal protective equipment:**
- **General protective and hygiene measures:** The usual precaution measures during handling of

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chemicals are to observe.

- **Respiratory protection:** Dust protection mask.
- **Hand protection:** Protection gloves of rubber or latex
- **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Form:** solid
- **Colour:** yellow – light brown
- **Odour:** faint odour of sulphur dioxide
- **Melting point / melting range:** 119 °C
- **Boiling point / boiling range:** 445 °C
- **Flash point:** 168 °C
- **Flammability (solid, vapours):** Flammable above flash point.
- **Ignition temperature:** 232 °C
- **Density:** (20 °C) 2,36 g/cm³
- **Vapour pressure:** (183,8 °C) 1 hPa, (246 °C) 10 hPa
- **Solubility in / Miscibility with**
- **Water:** Soluble in alkaline media forming polysulfides. In colloid form dispergable.

10 Stability and reactivity

- **Thermal decomposition / conditions to avoid:** No decomposition during appropriate use.
- **Materials to avoid:** Strong oxidizers. Warning: Explosion hazard in Mixture with chlorates, perchlorates and permanganates.
- **Hazardous reactions:** Reactions with all oxidants releases toxic sulphur oxides.
- **Hazardous decomposition products:** In case of fire hazardous decomposition products can be generated: Sulphur oxides

11 Toxicological information

- **Acute toxicity:**
LDLo Oral - Rabbit - 175 mg/kg
LD50 Oral - Rat - > 2.000 mg/kg
LC50 inhal - Rat - 4 h - > 9,23 mg/l
LD50 skin - Rabbit - > 2.000 mg/kg
LDLo Intravenous - Rat - 8 mg/kg
LDLo Intravenous - Rabbit - 5 mg/kg
LDLo Intraperitoneal - Meerschweinchen - 55 mg/kg
LDLo Intravenous - Hund - 10 mg/kg
- **Mögliche Gesundheitsschäden:**
- **Inhalation:** Can be harmful if inhaled. Can cause irritation of respiratory organs.
- **Swallowing:** Can be harmful if swallowed.
- **Skin:** Can be harmful after absorption through skin. Can cause skin irritation.
- **Eyes:** Can cause eye irritation.
- **Symptoms after exposition:** Indicator of exposition: respiratory irritations, Coughing, laryngitis, respiratory insufficiency, headache, Illness und Vomiting , dermatitis.
- **Additional toxicological informations:**
Carcinogenicity: IARC: Not listed as probable or proved carcinogene.

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12 Ecological information

- **Aquatic toxicity:**

Fische: Oncorhynchus mykiss: LC50 > 180 mg/l, 96 h

Andere Fische: 866 mg/l - 96 h

- Daphnia magna: EC50 > 5.000 mg/l, 48 h

- **Water hazard class:** 1 (VwVwS): slightly hazardous for water.

13 Disposal considerations

- **Product:**

- **Recommendation:** Disposal according to local regulations as pharmaceutical waste..

- **Empty contaminated packaging:**

- **Recommendation:** Disposal according to the local regulations.

14 Transport informations

- **Land transport according to ADR:**

Not classified as dangerous in the meaning of transport regulations. According to Special Provision 242 sulphur is not subject to the regulations of the ADR sulfur if it is in "special form", eg granules, flakes, pellets, beads, Sulfur in undefined form would have to be labelled:

- ADR/RID-GGVS/E Class: 4.1

- Packing group: III

- Hazard identification no.: 40

- UN-number: 1350

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.

- **Signal word:** Warning

- **H-Phrases:**

H315 Causes skin irritation

- **P-Phrases:**

P302 IF ON SKIN:

P352 Wash with plenty of soap and water

- **National regulations (Germany):**

- **Water hazard class:** see chapter 12

- **Storage class TRGS 510:** 11

16 Other information

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

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