


<p>Page 1 of 4</p> <p>Print Date 22.11.2018</p>	<p>Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)</p> <p>Captopril, API (mikrobielle Herkunft)</p>	 <p>Revision Date 22.11.2018</p>
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1 Identification of the substance/mixture and of the company/undertaking

· **Informations to product No. 4155**

· **Product name:**

Captopril, API (mikrobielle Herkunft) Captoprilum

· **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:** Danger

· **H-Phrases:**

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child

· **P- Phrases:**

P202 Do not handle until all safety precautions have been read and understood


P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P405 Store locked up.

Repr. 1A

Skin Sens. 1

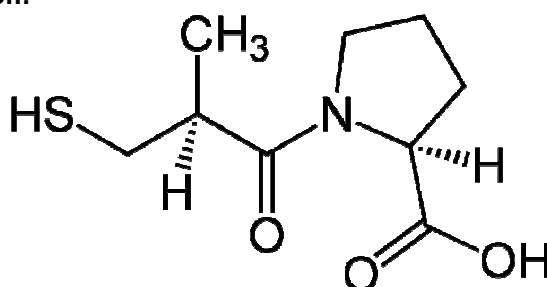
<p>Page 2 of 4</p> <p>Print Date 22.11.2018</p>	<p>Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)</p> <p>Captopril, API (mikrobielle Herkunft)</p>	 <p>Revision Date 22.11.2018</p>
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3 Composition / information on ingredients

CAS-No. Substance name

62571-86-2 Captopril

- **EINECS-No.:** 263-607-1
- **REACH Reg. No.:** (pre-registered)
- **INCI-Name:** -
- **Chemical characterization:**



4 First aid measures


- **after inhalation:** Fresh air. Get medical advice.
- **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.
- **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:** Combustible. In case of fire dangerous vapours/gases can be generated: sulfur oxides, nitrogen 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.

<p>Page 3 of 4</p> <p>Print Date 22.11.2018</p>	<p>Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)</p> <p>Captopril, API (mikrobielle Herkunft)</p>	 <p>Revision Date 22.11.2018</p>
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7 Handling and storage

- **Handling:** Ensure good ventilation / exhaustion at the workplace. Avoid formation of dust, aerosol.
- **Advice on safe handling:** The usual precaution measures during handling of chemicals are to observe.
- **Informations to fire or explosion protection:** Avoid generating dust and aerosols.
Good ventilation if dust is generated. Keep away from ignition sources.
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry, ventilated place.
- **Advices on common storage:** Not required.
- **Additional informations to storage conditions:** none

8 Exposure controls / personal protective equipment

- **Personal protective equipment:**
- **General protective and hygiene measures:** The usual precaution measures during handling of chemicals are to observe. Remove contaminated clothing immediately. Avoid contact with skin.
- **Respiratory protection:** Dust protection mask.
- **Hand protection:** Protection gloves of rubber or latex.
- **Eye protection:** Tightly closing Safety glasses

9 Physical and chemical properties


- **Form:** fine crystalline powder.
- **Colour:** white
- **Odour:** Odourless
- **Melting point / melting range:** 104 - 108 °C
- **Boiling point / boiling range:** not determined
- **Flash point:** not inflammable
- **Solubility in / Miscibility with**
- **Water:** readily soluble

10 Stability and reactivity

- **Stability:** the product is stabile
- **Thermal decomposition / conditions to avoid:** No decomposition during appropriate use.
- **Hazardous reactions:** reactions with the strong oxidants
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide, nitrogen oxides (NO_x) and sulfur dioxide.

11 Toxicological information

- **Acute toxicity:**
LD/LD50-data relevant for hazard classification:
LD/LC50: 4245mg/kg (rat)
- **Primary irritant effect:**
On skin: irritant to the skin

<p>Page 4 of 4</p> <p>Print Date 22.11.2018</p>	<p>Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)</p> <p>Captopril, API (mikrobielle Herkunft)</p>	 <p>Revision Date 22.11.2018</p>
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On eyes: irritant

- **Sensitization:** possible during the skin contact

12 Ecological information

- **Aquatic toxicity:** No data available.
- **log pO/W:** 0,34
- **Water hazard class:** 1 (self classification): slightly hazardous for water.
- **General advices:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **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.

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:** GHS07, GHS08
- **Signal word:** Danger
- **H-Phrases:**
H317 May cause an allergic skin reaction.
H360 May damage fertility or the unborn child
- **P- Phrases:**
P202 Do not handle until all safety precautions have been read and understood
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P405 Store locked up.
- **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.

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