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

· **Informations to product No. 2731**

· **Product name:**

Zinkorotat-Dihydrat, API Zinci orotas dihydricus

· **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:**

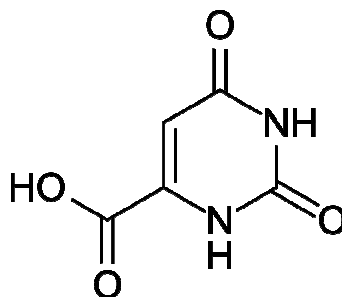
Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

2 Hazards identification

· **Hazards identification:** The substance is not classified as dangerous according to European Union legislation..

3 Composition / information on ingredients

· **Chemical characterization:**



Zinc salt of orotic acid


CAS-No. Substance name

68399-76-8 Zinc orotate-dihydrate

· **EINECS-No.:** 269-988-0

· **REACH Reg. No.:** (pre-registered)

· **INCI-Name:** -

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4 First aid measures

- **after inhalation:** Fresh air
- **after skin contact:** Wash away with water.
- **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:** Not combustible. In case of fire dangerous vapours/gases can be generated: Smoke gases, Zinc oxide fume.
- **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).

8 Exposure controls / personal protective equipment

- **Personal protective equipment:**
- **General protective and hygiene measures:** The usual precautions during handling of 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, clear crystals
- **Colour:** colourless
- **Odour:** nearly odourless

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- **Melting point / melting range:** >300 °C
- **Density:** Not determined
- **Solubility in / Miscibility with**
- **Water:** readily soluble
- **pH-range:** Not determined

10 Stability and reactivity

- **Thermal decomposition / conditions to avoid:** Avoid strong heating.
- **Materials to avoid:** Oxidants (Explosion hazard with peroxides), acids
- **Hazardous reactions:** Reaction with acids releases sulphur oxides.
- **Hazardous decomposition products:** sulphur dioxide.

11 Toxicological information

- **Acute toxicity:**
LD50 (oral rat): >3000 mg/kg (estimated)
- **Additional toxicological informations:**
Orotic acid can be harmful if swallowed or inhaled. Can cause skin irritations.
Related to vitamine B13; LD50 (oral rat) >2g/kg

12 Ecological information

- **Aquatic toxicity:**
Quantitative data are not available. Zinc salts are toxic for water organisms.
- **Water hazard class:** 2 (self classification): 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.

15 Regulatory information

- **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**
The product does not need to be labelled according to GHS-regulations.
- **National regulations (Germany):**
- **Water hazard class:** see chapter 12

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· **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.