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

- **Informations to product No. 2078**
- **Product name:**

Ammoniumchlorid
Ammonii chloridum, Ammonium chloratum
Ammonium chloride

- **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:**


H302 Harmful if swallowed
H319 Causes serious eye irritation

- **P-Phrases:**

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

Acute Tox. 4

Eye Irrit. 2

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3 Composition / information on ingredients

- **Chemical characterization:**
- CAS-No. Substance name**
12125-02-9 Ammonium chloride
- **EINECS-No.:** 235-186-4
- **Index-No.:** 017-014-00-8
- **REACH Reg. No.:** 01-2119487950-27-0000
- **INCI-Name:** Ammonium Chloride

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. If irritation continues, call in ophthalmologist..
- **after swallowing:** Drink water. Induce vomiting. Seek medical advice.
- **Medical advice:** After swallowing of big quantities: gastrolavage

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: Ammonia, Hydrogen chloride, Chlorine.
- **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. Dust protection mask.
- **Environmental protective measures:** Prevent from entering into surface water, the ground water system or soil.
- **Methods for cleaning:** Take up dry. Disposal according to Chapter 13 of this MSDS. Clean up with water.

7 Handling and storage

- **Handling:**
- **Advice on safe handling:** Avoid dust formation.
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry place.
- **Advices on common storage:** Not required.

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8 Exposure controls / personal protective equipment

- **General protective and hygiene measures:**
Keep away from food, beverages and animal food.
Wash hands before breaks and after work.
Avoid contact with eyes and skin.
Remove contaminated clothing.
- **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:** white
- **Odour:** odourless
- **Melting point / melting range:** 520 °C
- **Decomposition temperature:** > 350 °C
- **Vapour pressure:** (30 °C) <1,3 hPa
- **Density:** (20 °C) 1,53 g/cm³
- **Bulk density:** (20 °C) 500 kg/m³
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 376 g/l
- **pH-range:** (50 g/l, 20 °C) 4,5 - 5,5

10 Stability and reactivity

- **Thermal decomposition / conditions to avoid:** Strong heating. Thermal decomposition above 350 °C.
- **Materials to avoid:** Alkali hydroxide, Halogenes, strong oxidants.
- **Hazardous decomposition products:** Ammonia, Hydrogen chloride

11 Toxicological information

- **Acute toxicity:**
LD/LD50-data relevant for hazard classification:
Ammoniumchlorid LD50 (oral) 1650 mg/kg rat
LD50 (oral) 1300 mg/kg mouse
LDLo (oral) 1000 mg/kg rab
- **Primary irritant effect:**
- **on skin:** Slight irritation
- **on eyes:** Irritant effect.
- **on respiratory organs:** irritations of mucous membranes, coughing and respiratory insufficiency.
- **after swallowing:** irritations of mucous membranes. After swallowing of big quantities: headache, illness, Consciousness.

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12 Ecological information

Aquatic toxicity:

For Ammonium ions: toxic for: Fishes above 0,3 mg/l

· Information about elimination (persistence and degradability):

BWZ (Mammals): 3.0

BWZ (Bacteria): 2.4

BWZ (Fishes): 3.6

· **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.

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
- **Signal word:** Warning
- **H-Phrases:**
H302 Harmful if swallowed
H319 Causes serious eye irritation
- **P-Phrases:**
P280 Wear protective gloves/protective clothing/eye protection/face protection
- **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.