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

· **Informations to product No. 2318**

· **Product name:**

Kalium chloricum crudum cryst.

Kaliumchlorat (technisch)

Potassium chlorate

· **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.

2 Hazards identification

· **GHS-Labeling Elements:**



· **Signal word:** Danger

· **H-Phrases:**

H271 May cause fire or explosion; strong oxidize

H302 Harmful if swallowed

H332 Harmful if inhaled

H411 Toxic to aquatic life with long lasting effects

· **P-Phrases:**

P220 Keep/Store away from clothing/.../combustible materials


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

P273 Avoid release to the environment

Ox. Sol. 1

Acute Tox. 4

Aquatic Chronic 2

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3 Composition / information on ingredients

• **Chemical characterization:**

CAS-No. Substance name

3811-04-9 Potassium chlorate

• **EINECS-No.:** 223-289-7

• **Index-No.:** 017-004-00-3

• **REACH Reg. No.:** 01-2119494917-18-0000

• **INCI-Name:** Potassium Chlorate

4 First aid measures

- **General advices:** Take off contaminated clothes immediately.
- **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.
- **after swallowing:** Drink plenty of water, dann Milch. Induce vomiting. Atemwege freihalten. Seek medical advice.
- **Medical advice:** Gastrolavage.
- **The following symptoms might occur:** After swallowing: Illness, Vomiting, Pains, Diarrhea, Cyanose, Collapse, Cramps, Apnoea, Death.

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:** Oxidant. Keep away from combustible substances. Avoid shake and friction in contact with combustible substances.

6 Accidental release measures:

- **Personal protective measures:** Wear protective equipment. Keep away not protected persons.
- **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:** Ensure good ventilation/exhaustion at the workplace. Handling corresponding to laboratory safety guidelines.
- **Informations to fire or explosion protection:** Keep away from ignition sources. Do not smoke..
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C). Gut belüftet.

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- **Advices on common storage:** TRGS 515 "Storage of oxidants ..."

8 Exposure controls / personal protective equipment

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

9 Physical and chemical properties

- **Form:** crystalline
- **Colour:** colourless
- **Odour:** odourless
- **Melting point / melting range:** 368 °C
- **Boiling point / boiling range:** 400 °C
- **Decomposition temperature:** > 400 °C
- **Explosion hazard:** Explosion hazard with combustible substances
- **Density:** (20 °C) 2,338 g/cm³
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 70 g/l
- **pH-range:** (70 g/l, 20 °C) ca.5,6

10 Stability and reactivity

- **Thermal decomposition / conditions to avoid:** Thermal decomposition: > 400°C.
- **Materials to avoid:** Explosion hazard with: organic, combustible substances, metals in powder form, sulfides, hydrocarbons, ammonium compounds, Reductants, phosphorous, hydrides, alkali metals, cyanides, sulphur, alcohols.
- **Hazardous decomposition products:** At high temperatures oxygen can be released.

11 Toxicological information

LD50/LC50: Potassium chlorate - Von ACGIH, IARC, NTP, or CA Prop 65 not classified as carcinogene.

Carcinogenicity: See actual entry in RTECS for complete information.

LD/LD50-data relevant for hazard classification:

Kaliumchlorat LDLo > 10 g man


LDLo > 5 g child

• **Primary irritant effect:**

• **on skin:** Irritant.

• **on eyes:** Irritant effect.

• **after swallowing:** Illness, Vomiting, pains, Diarrhea, Cyanose, Collapse, Cramps, apnoea, death.

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12 Ecological information

- **Aquatic toxicity:**

Water organisms: LC50 100 mg/l/96h
Daphnia: Daphnia magna: LC50 880 mg/l
Bacteria: Ps. putida: EC0 1900 mg/l
Alges: Sc. quadricauda: EC0 0,24 mg/l
M. aeruginosa: EC0 12 mg/l
Fishes: Leuciscus idus: LC50 3500 mg/l

- **General advices:** Prevent from leaking into ground water, environment waters or drainage.
- **Water hazard class:** 2 (VwVwS): hazardous for water.

13 Disposal considerations

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

14 Transport informations

- **Land transport according to ADR:**
- **Proper shipping name:** Potassium chlorate
- **Class:** 5.1
- **UN-number:** 1485
- **Packing group:** II
- **Classification code:** O2
- **Limited quantities (Table 3.4.6. ADR):** 1 kg
- **Hazard classification number:** 50
- **Special provisions (Chapter 3.3 ADR):** -
- **Additional informations for sea transport IMDG:**
- **EMS-No.:** F-H, S-Q
- **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:** GHS03, GHS07, GHS09


- **Signal word:** Danger

- **H-Phrases:**

H271 May cause fire or explosion; strong oxidize
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- **P-Phrases:**

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P273 Avoid release to the environment

- **National regulations (Germany):**
- **Water hazard class:** see chapter 12
- **Storage class TRGS 510:** 5.1A

16 Other Information

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