



## Material Safety Data Sheet CALCIUM CHLORIDE GRANULES (Min. 94%)

### Calcium chloride granules

CAS No: 10043-52-4

Annex I Index No: 017-011-00-1

#### 1- Identification of the substance:

Name : Calcium chloride granules

Chemical structure :  $\text{CaCl}_2$ . Molecular

weight : 110.985

Concentration : Min. 94 %

#### 2- Composition: Granules

#### 3- Hazards Identification:

Appearance: white solid.

Warning!

May be harmful if swallowed.

May cause severe respiratory and digestive tract irritation with possible burns.

May cause severe eye and skin irritation with possible burns.

May cause cardiac

disturbances.

Hygroscopic (absorbs moisture from the air).

Target Organs: Eyes.

#### 4- Potential Health Effects :

Eye: Contact with eyes may cause severe irritation, and possible eye burns.

Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.

Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

May cause cardiac disturbances.

May be harmful if swallowed.

In very severe cases, seizures, rapid

Respiration, slow heartbeat, or death, may

Inhalation: May cause severe irritation of the upper respiratory tract with pain

Burns and inflammation.

Chronic: Effects may be delayed

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## 5- First Aid Measures:

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream.

## 6. Accidental release measures :

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.

## 7. Handling and storage:

**Precautions:** Keep locked up.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as moisture.

**Storage:** Hygroscopic. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 30°C (86°F).

## 8. Exposure Control & Personal Protection

- **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- **Personal Protection:** Safety glasses. Synthetic apron. Gloves (impervious).
- **Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
- **Exposure Limits:** Not available

## 9. Physical & Chemical Properties

- **Physical state and appearance:** Solid. (Crystalline solid.)
- **Odor:** Odorless.
- **Taste:** Saline.
- **Molecular Weight:** 110.99 g/mole
- **Color:** Colorless. White. Off-white.
- **pH (1% soln/water):** 9 [Basic.]
- **Boiling Point:** 1670°C (3038°F)
- **Melting Point:** 772°C (1421.6°F)
- **Critical Temperature:** Not available.
- **Specific Gravity:** 2.15 (Water = 1)
- **Vapor Pressure:** Not applicable
- **Vapor Density:** Not available.
- **Volatility:** Not available.
- **Odor Threshold:** Not available.
- **Water/Oil Dist. Coeff.:** Not available

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- **Solubility:** Easily soluble in cold water, hot water, acetone. Freely soluble in alcohol.

## 10. Stability and reactivity:

Chemical Stability: Stable.

Conditions to Avoid: Dust generation, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Bromine tri fluoride, Furan-2-peroxycarboxylic acid, Solutions attack some metals..

Hazardous Decomposition Products: Hydrogen chloride, calcium oxide.

Hazardous Polymerization: Will not occur.

## 11. Toxicological Information:

**Routes of Entry:** Absorbed through skin. Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 1000 mg/kg [Rat].

**Chronic Effects on Humans:**

**MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: heart, cardiovascular system.

Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact

**Special Remarks on Toxicity to Animals:**

Lowest Published Lethal Dose: LDL [Rabbit] - Route:

Oral; Dose: 1384 mg/kg **Special Remarks on Chronic**

**Effects on Humans:**

May affect genetic material based on animal data. May cause cancer

(tumorigenic) based on animal data. **Special Remarks on other Toxic Effects on**

**Humans:**

**Acute Potential Health Effects:**

**Skin:** May cause severe irritation and possible burns, especially if skin is wet. Contact with dry skin causes mild irritation.

Contact of solid with moist/wet skin or skin contact with strong solutions may cause marked irritation or possible burns. **Eyes:** May cause severe irritation, possible transient corneal injury, and possible eye burns.

**Inhalation:** May cause severe irritation of the upper respiratory tract with pain, inflammation and possible burns.

**Ingestion:** May cause severe gastrointestinal (digestive) tract irritation with nausea, vomiting and possible burns.

May affect cardiovascular system (cardiac disturbances, slow heart beat), behavior (seizures), metabolism, blood, and brain, respiration (rapid respiration).

**Chronic. Potential Health Effects:** effects may be delayed.

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**12. Ecological Information**

**Ecotoxicity:** Ecotoxicity in water (LC50): 100 mg/l 96 hours [Fish].

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

**13. Disposal Considerations**

**Waste Disposal:** Waste must be disposed of in accordance with State and other applicable environmental control regulations.

**14. Transport Information:**

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

**AIR TRANSPORT:** Not regulated.

**15. Other Regulatory Information**

**OSHA Status:** The above items either do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety.

These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**Toxic Substance Control Act (TSCA)**

CAS# 10043-52-4 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1, Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**16. Other Information**

**NFPA rating:**

Health:1, Flammability:0, Reactivity:1

**Label Hazards Warning:**

WARNING: CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL, IF SWALLOWED OR INHALED

**Label precautions:**

- Avoid contacts with eyes, skin and clothing
- Wash thoroughly after handling
- Avoid breathing dust

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel.

Ever give anything by mouth to an unconscious person.

In case of contact, wipe off excess material from skin then immediately flush eyes or skin with plenty of water for at least 15 minutes.

Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

If breathing is difficult, give oxygen.

In all cases, get medical attention

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