



Safety Data Sheet (SDS)–Calcium Chloride Solution

403-AD-RE-101-V01

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Report Document

Report Topic					
Safety Data Sheet (SDS)–Calcium Chloride Solution					
Purpose of Report					
Awareness and clarification of safety issues related to Calcium Chloride Solution					
Target Audience					
Organization stakeholders (including colleagues, customers, consumers, etc.)					
Other required details					
Revision number	Writing start date	Date of completion of writing	Prepared by	Approved by	Description
00	2024-8-15	2024-8-15	Amir Hossein Haratian	Amir Rafie	Initial writing
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Section 1: Substance and Company Identification

Product Information

- **Product Name:** 35% Calcium Chloride Solution
- **Trade Name:** Mulch – 35% Calcium Chloride Solution
- **CAS Number:** 10043-52-4
- **Appearance:** Light brown solution

Applications

- Reducing dust and making unpaved roads non-slippery
- Preventing road icing and snow removal
- Raw material for industries such as paint and rubber manufacturing
- Excellent moisture-absorbing and dehumidifying agent
- Water treatment (breaking oil/water emulsions)
- Metal cleaning

Manufacturer Information

- **Company:** Asia Potash Industry
- **Phone:** +98 21-88886036 / +98 21-88661968
- **Fax:** +98 21-88660379
- **Address:** Unit 1, No 8, 17th Alley, South Gandhi St, Tehran, Iran.
- **Email:** [info@ apic.ir](mailto:info@apic.ir)

Section 2: Hazard Identification

- **Classification:** Eye Irritant (Category 2)



- **Hazard Labeling:** Warning
- **Hazard Statements:**
 - Causes serious eye irritation.
- **Precautionary Statements:**
 - Wash hands and surfaces thoroughly after handling.
 - Use protective gloves, clothing, eye, and face protection.
 - If contact occurs with eyes, rinse with water for several minutes. Seek medical attention if irritation persists.

Section 3: Composition / Information on Ingredients

- **Substance Name:** 35% Calcium Chloride Solution
- **Concentration:** 30-35% calcium chloride by weight
- **CAS Number:** 10043-52-4

Section 4: First Aid Measures

- **Inhalation:** Move the person to fresh air. If symptoms persist, seek medical attention.
- **Ingestion:** Rinse mouth and give 200–300 mL of water. **Do not induce vomiting.** Seek medical attention.
- **Skin Contact:** Remove contaminated clothing and wash affected skin with water immediately.
- **Eye Contact:** Rinse eyes with water immediately and seek medical attention.

Most Important Acute and Delayed Symptoms

- Causes **serious eye irritation**.

Immediate Medical Attention and Special Treatment

- Treat symptoms accordingly.

Section 5: Firefighting Measures

- **Flammability:** Not flammable.
- **Fire Hazards:** Does not belong to flammable materials.
- **Firefighting Instructions:** Use appropriate fire suppression methods for surrounding materials.
- **Firefighter Protection:** Wear suitable protective gear.

Section 6: Accidental Release Measures

- **Personal Precautions:** Wear appropriate protective clothing.
- **Environmental Precautions:** Prevent material from entering the environment.
- **Containment and Cleanup:**
 - Absorb spills with inert material.
 - Transfer collected material to properly labeled containers.
 - Wash the spill area thoroughly with water.

Section 7: Handling and Storage

Handling Precautions

- Avoid skin and eye contact.
- Wear appropriate protective clothing.
- **Do not eat or drink while handling the product.**

Storage Conditions

- Store at room temperature.
- Use **polypropylene (PP), GRP, HDPE, or carbon steel containers** for storage.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** No established limits.
- **Personal Protective Equipment (PPE):**
 - Safety goggles
 - Protective gloves
 - Protective clothing

Section 9: Physical and Chemical Properties

Property	Value	Property	Value
Appearance	Liquid	Decomposition Temperature	Not specified
Color	Brown	Auto-ignition Temperature	Does not burn
Odor	Not specified	Explosion Hazard	Not specified
Odor Threshold	Not specified	Explosion Limits	Not specified
pH	7	Vapor Pressure	Not available
Melting Point	Not specified	Density	1300-1400 kg/m ³
Boiling Point	100-120°C	Relative Density	1.3-1.4
Sublimation Temperature	Not specified	Evaporation Rate	Not specified
Flash Point	Not specified	Water Solubility	Completely soluble
Flammability	Not specified	Partition Coefficient	Not specified
Ignition Temperature	Not specified	Viscosity	2-10 mPa·s at 20°C

Section 10: Stability and Reactivity

- **Reactivity:** Hygroscopic (absorbs moisture).
- **Chemical Stability:** Stable under normal conditions.
- **Incompatible Materials:** Strong oxidizers and reducing agents.
- **Hazardous Decomposition Products:** None known.

Section 11: Toxicological Information

- **Oral LD50 (Lethal Dose 50%):** 2301 mg/kg
- **Dermal LD50:** 5000 mg/kg
- **Acute Respiratory Toxicity:** Not available
- **Skin Irritation:** Not irritating
- **Eye Irritation:** Causes serious eye irritation

- **Mutagenic Effects:** Not available
- **Carcinogenicity:** Not available
- **Reproductive Effects:** Not available

Section 12: Ecological Information

- **Aquatic Toxicity:**
 - **LC50 (Fish):** 4330 mg/L
 - **LC50 (Algae):** 2900 mg/L
- **Persistence & Degradability:** Not applicable.
- **Bioaccumulation Potential:** Does not bioaccumulate; ionizes in water.
- **Mobility in Soil:** Soluble in water.

Section 13: Disposal Considerations

- **Waste Disposal:**
 - **Do not mix with acids.**
 - Dispose of according to local and regional regulations.

Section 14: Transport Information

- **Transport Classification:** Not classified as a hazardous material.

Section 15: Regulatory Information

- This substance is regulated under international safety laws, including:
 - **Health and Safety at Work Act (1974, UK)**
 - **The Carriage of Dangerous Goods Regulations (2009, UK)**
 - **EH40/2005 Workplace Exposure Limits**

Section 16: Other Information

- **Preparation Date:** 2024-8-15
- **Prepared By:** Amir Hossein Heratian
- **Approved By:** Amir Rafie

