



Material Safety Data Sheet (MSDS)

Calcium Chloride (CaCl₂)

1. Identification

- **Product Name:** Calcium Chloride
- **Chemical Formula:** CaCl₂
- **CAS Number:** 10043-52-4
- **Recommended Use:** Industrial, oil & gas, de-icing, drying agent, construction

2. Hazard Identification

- **Classification (GHS):**
 - Skin Irritation – Category 2
 - Eye Irritation – Category 2A
- **Signal Word:** Warning
- **Hazard Statements:**
 - Causes skin irritation
 - Causes serious eye irritation
- **Precautionary Statements:**
 - Avoid breathing dust
 - Wash hands thoroughly after handling
 - Wear protective gloves and eye protection

3. Composition / Information on Ingredients

Component	CAS Number	Concentration
Calcium Chloride	10043-52-4	≥ 74–94%

4. First Aid Measures

- **Inhalation:** Move to fresh air. Seek medical attention if symptoms persist
- **Skin Contact:** Wash with soap and water. Remove contaminated clothing
- **Eye Contact:** Rinse cautiously with water for at least 15 minutes
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical attention

5. Fire Fighting Measures

- **Suitable Extinguishing Media:** Water spray, foam, dry chemical
- **Specific Hazards:** Not flammable, but may release toxic fumes (HCl) at high temperatures
- **Protective Equipment:** Wear self-contained breathing apparatus

6. Accidental Release Measures

- Avoid dust formation
- Use protective equipment



- Sweep up and collect in suitable containers
- Prevent entry into waterways

7. Handling and Storage

- **Handling:**
 - Avoid contact with skin and eyes
 - Avoid inhalation of dust
- **Storage:**
 - Store in a dry, well-ventilated area
 - Keep container tightly closed
 - Protect from moisture

8. Exposure Controls / Personal Protection

- **Exposure Limits:** Not specifically regulated
- **Engineering Controls:** Adequate ventilation
- **Personal Protective Equipment (PPE):**
 - Gloves
 - Safety goggles
 - Dust mask (if airborne particles present)

9. Physical and Chemical Properties

Property	Value
Appearance	White flakes/pellets
Odor	Odorless
pH (10% solution)	7 – 9
Melting Point	772°C
Density	2.15 g/cm ³
Solubility	Highly soluble in water

10. Stability and Reactivity

- **Stability:** Stable under normal conditions
- **Conditions to Avoid:** Moisture, extreme heat
- **Incompatible Materials:** Strong acids, zinc
- **Hazardous Decomposition:** Hydrogen chloride gas

11. Toxicological Information

- **Acute Toxicity:** Low toxicity
- **Skin Contact:** Irritating
- **Eye Contact:** Causes irritation
- **Inhalation:** Dust may irritate respiratory tract



12. Ecological Information

- Not classified as environmentally hazardous
- High concentrations may affect aquatic life due to salinity

13. Disposal Considerations

- Dispose according to local regulations
- Avoid release into environment

14. Transport Information

- **UN Number:** Not regulated
- **Hazard Class:** Not classified as dangerous goods
- **Packing Group:** Not applicable

15. Regulatory Information

- Complies with GHS classification standards
- Follow local and international chemical regulations

16. Other Information

- Information is provided based on current knowledge and typical industry practices
- Not a guarantee of product properties