





# SAFETY DATA SHEET

**Product name** Calcium Chloride Flake

**Revision date** 5-21-15

## Section 3 Composition / Information on ingredients

Chemical Name	CAS-No	Weight %
Calcium Chloride	10043-52-4	74-100
Water	7732-18-5	0-26
Sodium Chloride	7647-14-5	< 3
Potassium Chloride	7447-40-7	< 3
Magnesium Chloride	7786-30-3	< 0.5

## Section 4 First - aid measures

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention if irritation persists.

**Skin Contact:** Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.

**Inhalation:** Move to fresh air. Get medical attention immediately if symptoms occur.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell Rinse mouth.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 Fire - fighting measures

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

None

### Specific Hazards Arising from the Chemical

Avoid generating dust, under certain conditions may cause respiratory irritation. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6 Accidental release measures

### **Personal Precautions:**

Avoid contact with the skin and the eyes. Use personal protective equipment. Avoid dust formation.

### **Environmental Precautions:**

Prevent large spills from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12,



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## Section 6 Accidental release measures (Continued)

Ecological Information.

### Methods and Materials for Containment and Cleaning Up:

Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See Section 13, Disposal considerations, for additional information.

## Section 7 Handling and storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Wash clothing before reuse. Always use cool water when dissolving Calcium Chloride. Heat evolved is significant.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Store below melting point.

**Incompatible Products:** Zinc, Bromine tri-fluoride, Methyl vinyl ether

## Section 8 Exposure controls / personal protection

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Chloride 10043-52-4	ACGIH - (TLV-TWA) Guideline for nuisance particulate (inhalable particulate): 10 mg/m <sup>3</sup>	OSHA (PEL-TWA) - Z-3 Mineral Dusts, Inert or Nuisance dusts, (respirable fraction): 5 mg/m <sup>3</sup>	-

**Engineering Measures** Provide local exhaust ventilations system. When there is a potential for exposure, an emergency eyewash and safety shower should be provided within the immediate work area.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear safety glasses with non-flexible side shields or chemical goggles

**Skin and Body Protection** **Hands and Feet:** Wear appropriate protective non-leather protective gloves and boots. Chemical protective gloves and boots such as PVC, Neoprene, or Heavy Nitrile are recommended. Leather products do not offer adequate protection and will dehydrate with resultant shrinkage and possible destruction.  
**Body:** Wear appropriate protective, impervious clothing.

**Respiratory Protection** A respirator is not indicated under normal operating conditions. Use of a NIOSH - approved respirator (N95 or greater) should be based on the presence of nuisance dusts.

**Hygiene Measures** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.



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## Section 9 Physical and chemical properties

**Physical State:** Flake

**Appearance:** white

**Odor:** odorless

**pH:** 8-10 100 g/l aq.sol.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** > 1600 deg C @ 760.0

**Freezing/Melting Point:** 782 deg C

**Decomposition Temperature:** Not available.

**Solubility:** 740 g/l water (20°C)

**Specific Gravity/Density:** Not available.

**Molecular Formula:** CaCl<sub>2</sub>

**Molecular Weight:** 110.99

## Section 10 Stability and reactivity

**Chemical Stability:** Stable.

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

**Incompatibilities with Other Materials:** Zinc, Bromine tri-fluoride, Methyl vinyl ether

**Hazardous Decomposition Products:** Hydrogen chloride, calcium oxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 Toxicological information

### Information on likely routes of exposure

**Inhalation** May cause irritation of respiratory tract.

**Eye Contact** Irritating to eyes.

**Skin Contact** May cause irritation.

**Ingestion** Harmful if swallowed.

### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium Chloride	= 1000 mg/kg ( Rat )	= 2630 mg/kg ( Rat )	-
Potassium Chloride	= 2600 mg/kg ( Rat )	-	-
Sodium chloride	= 3 g/kg ( Rat )	> 10 g/kg ( Rabbit )	> 42 g/m <sup>3</sup> ( Rat ) 1 h

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** May cause irritation to the respiratory system.

### Delayed and immediate effects and also chronic effects from short and long term exposure

**Eye damage/irritation**

Irritating to eyes.

**Sensitization**

No information available.

**Mutagenic Effects**

No information available.

**Carcinogenicity**

Contains no ingredients above reportable quantities listed as a carcinogen.

**Reproductive Toxicity**

No information available.

**STOT - single exposure**

No information available.



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## Section 11 Toxicological information (Continued)

**STOT - repeated exposure** No information available.  
**Chronic Toxicity** Avoid repeated exposure.  
**Aspiration Hazard** No information available.

### Numerical measures of toxicity - Product

**Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity.

*The following values are calculated based on chapter 3.1 of the GHS document:*

**LD50 Oral** 979 mg/kg; Acute toxicity estimate  
**LD50 Dermal** 2630 mg/kg; Acute toxicity estimate

## Section 12 Ecological information

### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Calcium Chloride 10043-52-4		LC50 96 h: = 10650 mg/L static (Lepomis macrochirus)		LC50 48 h: = 2400 mg/L (Daphnia magna)
Potassium Chloride 7447-40-7	EC50 72 h: = 2500 mg/L (Desmodesmus subspicatus)	LC50 96 h: 750-1020 mg/L static (Pimephales promelas) LC50 96 h: = 1060 mg/L static (Lepomis macrochirus)		EC50 48 h: = 825 mg/L (Daphnia magna) EC50 48 h: = 83 mg/L Static (Daphnia magna)
Sodium chloride 7647-14-5		LC50 96 h: 5560 - 6080 mg/L flow-through (Lepomis macrochirus) LC50 96 h: = 12946 mg/L static (Lepomis macrochirus) LC50 96 h: 6020 - 7070 mg/L static (Pimephales promelas) LC50 96 h: = 7050 mg/L semi-static (Pimephales promelas) LC50 96 h: 6420 - 6700 mg/L static (Pimephales promelas) LC50 96 h: 4747 - 7824 mg/L flow-through (Oncorhynchus mykiss)		EC50 48 h: = 1000 mg/L (Daphnia magna) EC50 48 h: 340.7 - 469.2 mg/L Static (Daphnia magna)

## Section 13 Disposal considerations

**Waste Disposal Methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging** Do not re-use empty containers.

## Section 14 Transport information

**US DOT –** Not Regulated  
**TDG –** Not Regulated  
**MEX –** Not Regulated



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## Section 15 Regulatory information

### International Inventories

**TSCA** Complies  
**DSL** Complies

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

### U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

**Acute Health Hazard** Yes  
**Chronic Health Hazard** No  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### U.S. State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

#### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

## Section 16 Other information

### HMIS Rating

Health hazard: 1  
Flammability: 0  
Physical Hazard 1

### NFPA Rating

Health hazard: 1  
Fire Hazard: 0  
Reactivity Hazard: 1

### **DATE OF PREPARATION**

**5-21-15**

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