



# MATERIAL SAFETY DATA SHEET

CALCIUM CHLORIDE

## 1 PRODUCT & COMPANY IDENTIFICATION

**PRODUCT** **CALCIUM CHLORIDE**  
**Product Name** CALCIUM CHLORIDE  
**Item Code** SDSCC  
**Cas #** 10043-52-4  
**Product Use** De-icer,  
**Manufacturer(s)** **Calcium Chloride:** **The Dow Chemical Company**  
Midland, Michigan 48674 U.S.A  
989-636-4400  
**Supplier** **Salt Depot**  
5442 Wells Park Road  
West Jordan, Utah 84084  
801-282-1250

## 2 HAZARDS IDENTIFICATION

**Emergency Overview** CAUTION  
EYE & SKIN IRRITANT  
**Potential Short Term health effects**  
**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.  
**Eyes** May cause irritation.  
**Skin** May cause irritation.  
**Inhalation** Dusts of this product may cause irritation of the nose throat, and respiratory tract.  
**Ingestion** May cause stomach distress, nausea or vomiting.  
**Target Organs** Eyes. Skin. Respiratory system.  
**Chronic Effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis  
**Signs and Symptoms** Symptoms may include redness, edema, drying, defatting and cracking of  
Skin. Symptoms of overexposure may be headache, dizziness, tiredness,  
nausea and vomiting.

## 3 COMPOSITION/INFORMATION on INGREDIENTS

Ingredient(s)	CAS#	Percent
Calcium chloride	7791-18-6	100%

## 4 FIRST AID MEASURES

**First Aid Procedures**  
**Eye Contact** Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists  
**Skin Contact** Flush with cool water. Wash with soap & water. Obtain medical attention if irritation persists.  
**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.  
**Ingestions** Do not induce vomiting. Rinse mouth with water, then drink 1 to 2 glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.  
**Notes to Physician** Symptoms may be delayed  
**General advice** None Available

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**5 FIRE FIGHTING MEASURES**

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<b>Flamable properties</b>	Not flammable by WHMIS/OSHA criteria
<b>Flash point &amp; method</b>	N.A
<b>Flamable limits</b>	N.A
<b>Extinguishing Media</b>	
<b>Suitable extinguishing media</b>	Treat for surround material, water spray, dry chemicals, foam or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not Available
<b>Protection of FireFighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Unusual Fire &amp; Explosion Hazards</b>	None expected, but avoid the build up of dye dust clouds which could be explosive.

NFPA FIRE HAZARDS	Minimal	<b>0</b>
Health:	Slight	<b>1</b>
Fire:	Moderate	<b>2</b>
Reactivity:	Serious	<b>3</b>
Specific:	Severe	<b>4</b>

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**6 ACCIDENTAL RELEASE MEASURES**

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<b>Personal precautions</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
<b>Methods of containment</b>	None Necessary
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. Discard containers except for storage and shipment of original product.

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**7 HANDLING & STORAGE**

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<b>Handling</b>	Avoid breathing dusts from this material
<b>Storage</b>	Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place.

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**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

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<b>Exposure Limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Calcium chloride	ACGIH-TLV not established OSAH-PEL Not Established
<b>Engineering Controls</b>	TWA PEL: No specific limit have been established for magnesium chloride & sodium chloride (a soluble substance). As a guideline, OSHA has established the following limits which are generally recognized for inert or nuisance dust. Particulates not otherwise regulated (PNOR): 5mg/cu.m. Respirable dust 8-hour TWA PEL, 15mg/cu.m. Total dust 8-hour TWA PEL.  TWA TLV: No specific limit have been established for magnesium chloride & sodium chloride (a soluble substance). As a guideline, ACGIH has established the following limits which are generally recognized for inert or nuisance dust. Particulates not otherwise classified (PNOC): 10mg/cu.m. Respirable dust 8-hour TWA TLV, 15mg/cu.m. Total dust 8-hour TWA TLV.  Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limits.
<b>Personal Protective equipment</b>	
<b>Eye/Face protection</b>	Safety glasses
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin &amp; Body protection</b>	As required by employer code
<b>Respiratory protection</b>	Where exposure guideline may be exceeded, use an approved NIOSH respirator or NIOSH approved filtering facepiece
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks & immediately after handling product.

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**9 PHYSICAL & CHEMICAL PROPERTIES**

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Appearance	Crystalline
color	Clear/White
Form	Crystalline
Odor	Odorless
Odor Threshold	Not available
Physical State	Solid
pH	8-9 for Aqueous Solution
Melting Point	782 C
Freezing Point	Not available
Boiling Point	1600 C
Flash Point	Not available
Evaporation Rate	Not available
Flammability limits in air, lower,% by volume	Not applicable
Flammability limits in air, upper,% by volume	Not applicable
Vapor pressure	No informaton
Vapor density	Air=1
Octanol/Water coefficient	Not available
Solubility (H2O)	Exothermic
Auto-ignition temperature	Not available
Molecular formula	CaCl <sub>2</sub>

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**10 CHEMICAL STABILITY REACTIVITY INFORMATION**

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Chemical Stability	Stable under recommended storage conditions
Conditions to avoid	Do not mix with incompatible materials
Incompatible materials	Reactive with oxidizing agents, acids, metals in presence of moisture, lithium, bromine, trifluoride
Hazardous decomposition products	May include and are not limited to : Halogenated compounds. Hydrogen chloride
Possibility of hazardous reactions	

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**11 TOXICOLOGICAL INFORMATION**

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Component analysis-LC50	
Ingredients	LC50
Calcium chloride	Not available
Ingredients	LC50
Calcium chloride	8100 mg/kg rat; 7600 mg/kg mouse
Effects of acute exposure	
Eye	May cause irritation
Skin	May cause irritation
Inhalation	Dust of this product may cause irritation of the nose, throat, & respiratory tract
Ingestion	May cause stomach distress, nausea or vomiting
Sensitization	Not classified or listed by IARC, NTP, OSHA, and ACGIH
Chronic effects	Not classified or listed by IARC, NTP, OSHA, and ACGIH
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA, and ACGIH
Mutagenicity	Not classified or listed by IARC, NTP, OSHA, and ACGIH
Reproductive effects	Not classified or listed by IARC, NTP, OSHA, and ACGIH
Teratogenicity	Not classified or listed by IARC, NTP, OSHA, and ACGIH

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**12 ECOLOGICAL INFORMATION**

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Ecotoxicity	Maybe harmful to freshwater aquatic species and to plants that are not tolerant
Environmental effects	Not available
Aquatic toxicity	Not available
Persistence/Degradability	Not available
Bioaccumulation/ accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available

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**13 DISPOSAL CONSIDERATIONS**

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Waste codes	Not available
Disposal instruction	Waste must be disposed of in accordance with federal, state, & local environmental controls
Waste from residues/unused products	Not available
Contaminated packaging	Not available

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**14 TRANSPORTATION INFORMATION**

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Department of Transportations (DOT)	
Not regulated as dangerous goods	
Transportation of Dangerous Goods (TDG)	
Not regulated as dangerous goods	

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**15 REGULATORY INFORMATION**

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**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the controlled products regulations and the MSDS contains all the information required by the Controlled products regulations and the MSDS contains all the information required by the Controlled

**US Federal regulations** This product is not know to be a "Hazardous Chemical" as defined by the OSHA hazard Communication Standard, 29 CFR 1910.1200.  
CERCLA/SARA Hazardous Substances- Not Applicable

**Occupational Safety & ealth Administration (OSHA)  
29 CFR 1910.1200 hazardous  
chemical** No

**CERCLA (Superfund) reportable quantity**  
None

**Superfund Amendents and Reauthorization Acot of 1986 (SARA)**

**Hazard Catagories** Immediate Hazard- No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard -No  
Reactivity Hzard - No

**Section 302 Extremely  
hazardous substance** No

**Section 311 hazardous chemical** No

**Clean Air Act (CAA)** Not avialable

**Clean Water Act (CWA)** Not available

**Safe Drinking Act (SDWA)** Not available

**Drug Enforcement Agency (DEA)** Not available

**Food and Drug Administration (FDA)** Not available

**WHMIS status** Not Controlled

**State Regulations** This product does not contain a chemical known to the State of California to cause cancer birth defects or other reproductive harm.

**Inventory name**

<b>Country(s) or Region</b>	<b>Inventory Name</b>	<b>On Inventory (yes/No)*</b>
<b>Canada</b>	Domestic Substances List (DSL)	YES
<b>Canada</b>	Non-Domestic Substances List (NDSL)	NO
<b>United States &amp; Puerto Rico</b>	Toxic Substances Control Act (TSCA) Inventory	YES

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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**16 OTHER INFORMATION**

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**DISCLAIMER**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so states. Since conditions of actual product are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and reulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.