

Preparation Date: 01/01/2019

Revision Date: N/A

Revision Number: N/A

## 1. IDENTIFICATION

### Product identifier

**Product code:** C2440  
**Product Name:** CALCIUM CHLORIDE, DESICCANT, REAGENT, ACS

### Other means of identification

**Synonyms:** Calplus  
Caltac  
Snomelt  
Superflake anhydrous

**CAS #:** 10043-52-4  
**RTECS #** EV9800000  
**CI#:** Not available

### Recommended use of the chemical and restrictions on use

**Recommended use:** Fire extinguishing agent. In desiccators.  
**Uses advised against** No information available

**Supplier:** **Dawn Scientific Inc**  
121 Liberty Street, Metuchen, NJ, 08840  
Tel : 732-902-6300 | Fax : 973-802-1005  
sales@dawnscientific.com | www.dawnscientific.com

**Emergency telephone number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2

### Label elements

#### Warning

#### Hazard statements

Harmful if swallowed  
Causes serious eye irritation

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Exothermic reaction with water

Dissolves in water releasing heat

May be harmful in contact with skin

Causes mild skin irritation

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear eye/face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No.	Weight %
Calcium Chloride, Anhydrous	10043-52-4	100

**4. FIRST AID MEASURES****First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

**Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention.

**Inhalation:**

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**

Irritating to eyes  
Irritating to respiratory system  
Causes digestive (gastrointestinal) tract irritation  
Nausea  
Vomiting  
Central nervous system effects  
Drowsiness  
Convulsions  
May affect the cardiovascular system  
Cardiac arrhythmias

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES****Extinguishing Media****Suitable Extinguishing Media:**

The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

**Unsuitable Extinguishing Media:**

No information available.

**Specific hazards arising from the chemical****Hazardous Combustion Products:**

No information available.

**Specific hazards:**

The substance itself does not burn, but may decompose upon heating. This material is an inorganic dust/powder and will not create nor support conditions that would result in a dust explosion or fire. When heated to decomposition it emits toxic fumes. Poisonous gases are produced in fire including chlorine.

**Special Protective Actions for Firefighters****Specific Methods:**

No information available.

**Special Protective Equipment for Firefighters:**

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

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid dust formation.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent from entering into soil, ditches, sewers, waterways, and/or ground water.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe vapors/dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Hygroscopic. Deliquescent. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

#### **Incompatible Materials:**

Water  
Zinc  
Metals  
Oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Calcium Chloride, Anhydrous	10043-52-4	None	None	None	None

##### **Canada**

Components	CAS-No.	Canada - Alberta	Canada - British	Canada - Ontario	Canada - Quebec
------------	---------	------------------	------------------	------------------	-----------------

			<b>Columbia</b>		
Calcium Chloride, Anhydrous	10043-52-4	None	None	5 mg/m <sup>3</sup> TWA	None

#### Australia and Mexico

Components	CAS-No.	<b>Australia</b>	<b>Mexico</b>
Calcium Chloride, Anhydrous	10043-52-4	None	None

#### Appropriate engineering controls

##### Engineering measures to reduce exposure:

Ensure adequate ventilation. 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.

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

##### Personal Protective Equipment

**Eye protection:** Goggles

**Skin and body protection:** Long sleeved clothing  
Chemical resistant apron  
Gloves

**Respiratory protection:** Wear respirator with dust filter.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical state:

Solid

#### Appearance:

Crystalline powder. Crystalline.  
Granular. Pellets.

#### Color:

White. Off-white.

#### Odor:

None.

#### Taste

Saline.

#### Formula:

CaCl<sub>2</sub>

#### Molecular/Formula weight (g/mole):

110.99

#### Flammability:

No information available

#### Flashpoint (°C/°F):

No information available.

#### Flash Point Tested according to:

Not applicable

#### Autoignition Temperature (°C/°F):

No information available

#### Lower Explosion Limit (%):

No information available

#### Upper Explosion Limit (%):

No information available

#### Melting point/range(°C/°F):

772-775 °C/1421.6-1427 °F

#### Decomposition temperature(°C/°F):

No information available

#### Boiling point/range(°C/°F):

> 1600 °C/> 2912 °F

#### Bulk density:

No information available

#### Density (g/cm<sup>3</sup>):

1.34 @ 20 °C

2.15 @ 25 °C

#### Specific gravity:

No information available

#### pH:

No information available

#### Vapor pressure @ 20°C (kPa):

No information available

**Evaporation rate:**  
No information available

**Vapor density:**  
No information available

**VOC content (g/L):**  
No information available

**Odor threshold (ppm):**  
No information available

**Partition coefficient  
(n-octanol/water):**  
No information available

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Freely soluble in water with liberation of much heat  
Solubility in Water: 75.4 g/l @ 20 °C;  
81.3 g/100 g water @ 25 °C

## 10. STABILITY AND REACTIVITY

### Reactivity

Exothermic reaction with water  
Dissolves in water releasing heat  
Reaction with Zinc releases explosive hydrogen gas  
Bromine trifluoride rapidly attacks calcium chloride  
Violent polymerization occurs when mixed with Methyl Vinyl Ether

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Avoid dust formation. Incompatible materials.

**Incompatible Materials:** Water  
Zinc  
Metals  
Oxidizing agents

**Hazardous decomposition products:** When heated to decomposition it emits toxic fumes. Hydrogen chloride gas.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Ingestion. Inhalation.

### Acute Toxicity

### Component Information

Calcium Chloride, Anhydrous	
CAS-No.	10043-52-4

LD50/oral/rat = 1000 mg/kg Oral LD50 Rat  
LD50/oral/mouse = 1940 mg/kg  
LD50/dermal/rabbit = No information available  
LD50/dermal/rat = 2630 mg/kg Dermal LD50 Rat  
LC50/inhalation/rat = No information available  
LC50/inhalation/mouse = No information available  
Other LD50 or LC50 information = 3798 mg/kg Oral LD50 Rat  
4179 mg/kg Oral LD50 Rat  
2000 mg/kg Oral LD50 Rat

## Product Information

LD50/oral/rat =  
VALUE- Acute Tox Oral = 1000 mg/kg

LD50/oral/mouse =  
Value - Acute Tox Oral = 1940 mg/kg

LD50/dermal/rabbit  
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat  
VALUE -Acute Tox Dermal = 2630 mg/kg

LC50/inhalation/rat  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

## Symptoms

<b>Skin Contact:</b>	May cause skin irritation. Mild skin irritation. Contact with dry skin causes mild skin irritation. May cause severe irritation and possible burns if skin is wet.
<b>Eye Contact:</b>	Causes serious eye irritation. May cause transient corneal injury.
<b>Inhalation</b>	Irritating to respiratory system. May cause severe irritation of the upper respiratory tract with pain, and inflammation.
<b>Ingestion</b>	Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting. May affect behavior/central nervous system (somnolence, convulsions). May affect the cardiovascular system (cardiac arrhythmias). May affect the cardiovascular system (change in heart rate). May affect blood (changes in serum composition). May affect the blood (changes in white blood cell count). May affect respiration. It may affect the brain.
<b>Aspiration hazard</b>	No information available.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Chronic Toxicity</b>	No information available.
<b>Sensitization:</b>	No information available.

**Mutagenic Effects:** May affect genetic material

**Carcinogenic effects:** Not considered carcinogenic. Equivocal tumorigenic agent by Registry of Toxic Effects of Chemical Substances (RTECS) criteria.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Calcium Chloride, Anhydrous	10043-52-4	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

#### **Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

## **12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Calcium Chloride, Anhydrous - 10043-52-4*

**Freshwater Fish Species Data:** 10650 mg/L LC50 *Lepomis macrochirus* 96 h static 1

**Water Flea Data:** 52 mg/L EC50 *Daphnia magna* 48 h

**Persistence and degradability:** Not inherently biodegradable

**Bioaccumulative potential:** Does not bioaccumulate.

**Mobility:** No information available.

## **13. DISPOSAL CONSIDERATIONS**

### **Disposal Methods**

#### **Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Calcium Chloride, Anhydrous	10043-52-4	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Class:** No information available  
**Packing group:** No information available  
**Emergency Response Guide Number:** No information available  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions:** No Information available  
**Symbol(s):** No information available  
**Description:** No information available

### TDG (Canada)

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant:** No Information available  
**Description:** No information available

### ADR

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available

### IMO / IMDG

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant:** No information available

### RID

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

### ICAO

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available

**Subsidiary Risk:** No information available  
**Packing Group:** No information available

#### IATA

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**ERG Code:** No information available  
**Special Provisions** No information available

### 15. REGULATORY INFORMATION

#### International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Calcium Chloride, Anhydrous	10043-52-4	Present(ACTI VE)	Present KE-04496	Present	Present (1)-176	Present	Present	Present 233-140-8

#### U.S. Regulations

*Calcium Chloride, Anhydrous*

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1193

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Calcium Chloride, Anhydrous	10043-52-4	Not Listed	Not Listed	Not Listed	Not Listed

#### CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Calcium Chloride, Anhydrous	10043-52-4	None	None	None	None	None

#### U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Calcium Chloride, Anhydrous	10043-52-4	Not Applicable	Not Applicable

#### Canada

#### WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification  
Information:

Component  
Calcium Chloride, Anhydrous  
10043-52-4 ( 100 )

WHMIS 2015 Hazard Classification  
Serious Eye Damage/Eye Irritation - Category 2A: H319 Causes  
serious eye irritation.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Calcium Chloride, Anhydrous	10043-52-4	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Calcium Chloride, Anhydrous	10043-52-4	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Calcium Chloride, Anhydrous	10043-52-4	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Calcium Chloride, Anhydrous	10043-52-4	No information

### EU - CLP (1272/2008)

### R-phrases(s)

R36 - Irritating to eyes.

### S -phrase(s)

S 2 - Keep out of the reach of children.

S22 - Do not breathe dust.

S24 - Avoid contact with skin.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Calcium Chloride, Anhydrous	10043-52-4	Xi; R36	No information	S2 S22 S24

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

### Indication of danger:

Xi - Irritant.

Xi



## 16. OTHER INFORMATION

**Preparation Date:** 01/01/2019  
**Revision Date:** N/A  
**Prepared by:** -

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Dawn Scientific Inc Chemicals & Laboratory Products, assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Dawn Scientific Inc assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**