

## SAFETY DATA SHEET

### Section 1: Identification

Product name: Calcium chloride  
Product use: For laboratory research purposes.  
Supplier: Trace Sciences International  
40 Vogell Rd Suite 42  
Richmond Hill, ON L4B 3N6  
CANADA  
Telephone: +1 905-770-1100  
Fax: +1 905-770-1160  
Emergency Phone: CANUTEC +1-613-996-6666

### Section 2: Hazard(s) Identification

#### 2.1 GHS Classification

Eye irritation (Category 2A), H319

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



**Signal word** Danger

**Hazard statement(s):**  
H319 Causes serious eye irritation.

**Precautionary statement(s):**  
P264 Wash skin thoroughly after handling.  
P280 Wear eye protection/ face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Section 3: Composition/ Information on Ingredients

**Formula** : CaCl<sub>2</sub>  
**Molecular Weight** : 110.98 g/mol

Material	CAS-No.	EC-No.	Index-No.	Concentration
Calcium chloride	10043-52-4	233-140-8	017-013-00-2	<=100%

### Section 4: First-Aid Measures

#### 4.1 Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move person out of dangerous area if safe to do so.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water for at least 15 minutes. Use chemical shower if available. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contacts if possible.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## Section 5: Fire-Fighting Measures

**5.1 Conditions of flammability**

Not flammable or combustible.

**5.2 Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.3 Hazardous combustion products**

Hazardous decomposition products formed under fire conditions: Hydrogen chloride gas, calcium oxide

**5.4 Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.5 Further information**

No data available

## Section 6: Accidental Release Measures

**6.1 Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

## Section 7: Handling and Storage

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**7.2 Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure Controls/Personal Protection

### 8.1 Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Calcium chloride	10043-52-4	TWA	5 mg/m <sup>3</sup>	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.

### 8.2 Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Specific engineering controls

Use mechanical exhaust or laboratory fume hood to avoid exposure.

## Section 9: Physical and Chemical Properties

#### Appearance

Form Crystalline  
 Colour White

#### Safety Data

pH No data available  
 Melting point/freezing point 775 °C (1,427 °F)  
 Boiling point 1,935 °C (3,515 °F)  
 Flash point No data available  
 Flammability (solid, gas) No data available  
 Ignition temperature No data available  
 Auto-ignition temperature No data available  
 Lower explosion limit No data available

Upper explosion limit	No data available
Vapour pressure	0.01 hPa (0.01 mmHg) at 20 °C (68 °F)
Density	No data available
Water solubility	81.3 g/l at 25 °C (77 °F)
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

## Section 10: Stability and Reactivity

### 10.1 Chemical stability

Stable under recommended storage conditions

### 10.2 Possibility of hazardous reactions

Exothermic reaction with:

Boron trifluoride, vinylmethyl ether, water

Generates dangerous gases or fumes in contact with:

Metals, zinc

### 10.3 Conditions to avoid

No data available

### 10.4 Materials to avoid

Strong acids, borane/boron oxides, zinc, calcium oxide, methyl vinyl ether, calcium chloride is attacked by bromine trifluoride

### 10.5 Hazardous decomposition products

See section 5

## Section 11: Toxicological Information

### Acute toxicity

#### Oral

LD50 Oral - Rabbit - male - 500 - 1,000 mg/kg  
(OECD Test Guideline 401)

#### Inhalation

No data available

#### Dermal

LD50 Dermal - Rabbit - male and female - > 5,000 mg/kg  
Remarks: (ECHA)

#### Other information on acute toxicity

No data available

### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h  
(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Moderate eye irritation  
(OECD Test Guideline 405)

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Test Type: Mutagenicity (mammal cell test): chromosome aberration.  
Test system: Chinese hamster fibroblasts  
Metabolic activation: without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: Ames test  
Test system: S. typhimurium  
Metabolic activation: Metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: (Lit.)

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Signs and Symptoms of Exposure**

No data available

**Additional Information**

RTECS: EV9800000

**Section 12: Ecological Information**

**12.1 Toxicity**

Toxicity to fish	Static test LC50 - Pimephales promelas (fathead minnow) - 4,630 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 2,400 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	EC50 - Pseudokirchneriella subcapitata - 2,900 mg/l - 72 h (OECD Test Guideline 201)

#### **12.2 Persistence and degradability**

No data available

#### **12.3 Bioaccumulative potential**

No data available

#### **12.4 Mobility in soil**

No data available

#### **12.5 PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### **12.6 Other adverse effects**

No data available

### **Section 13: Disposal Considerations**

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### **Contaminated packaging**

Dispose of as unused product.

### **Section 14: Transport Information**

#### **IATA**

Not dangerous good

### **Section 15: Regulatory Information**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

### **Section 16: Other Information**

#### **Further information**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for his or her particular purpose(s).

#### ***Trace Sciences International.***

See <https://www.tracesciences.com/> for additional terms and conditions of sale.

**Date Prepared: February 10, 2025**