



Fisher Scientific

Part of Thermo Fisher Scientific

Material Safety Data Sheet

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|--|
| Product Name | Calcium chloride dihydrate |
| Cat No. | BP510-100; BP510-250; BP510-500; C69-50; C69-500; C69-500LC; C70-500; C79-3; C79-3LC; C79-500 |
| Synonyms | (Crystals/Powder/Granules/USP/FCC/EP/Certified ACS) |
| Recommended Use | Laboratory chemicals |
| Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100 | Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 703-527-3887 |

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Irritating to eyes. May cause skin and respiratory tract irritation. Hygroscopic.

Appearance Beige - White

Physical State Solid

odor odorless

Target Organs Eyes

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

Irritating to eyes.

Skin

May cause irritation.

Inhalation

May cause irritation of respiratory tract. May be harmful if inhaled.

Ingestion

May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

None known.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

| Component | CAS-No | Weight % |
|-----------------------------|------------|----------|
| Calcium chloride, dihydrate | 10035-04-8 | >95 |
| Calcium chloride | 10043-52-4 | - |

4. FIRST AID MEASURES

| | |
|---------------------------|--|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur. |
| Ingestion | Do not induce vomiting. Obtain medical attention. |
| Notes to Physician | Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

| | |
|---|--|
| Flash Point | No information available. |
| Method | No information available. |
| Autoignition Temperature | No information available. |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Suitable Extinguishing Media | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.. |
| Unsuitable Extinguishing Media | No information available. |
| Hazardous Combustion Products | No information available. |
| Sensitivity to mechanical impact | No information available. |
| Sensitivity to static discharge | No information available. |

Specific Hazards Arising from the Chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

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.

NFPA **Health 2** **Flammability 0** **Instability 1** **Physical hazards N/A**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Exposure Guidelines

| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
|------------------|--------|------------------|--------------------------|
| Calcium chloride | | | TWA: 5 mg/m ³ |

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------|---|
| Physical State | Solid |
| Appearance | Beige - White |
| odor | odorless |
| Odor Threshold | No information available. |
| pH | 4.5-6.5 100 g/l aq. sol. |
| Vapor Pressure | No information available. |
| Vapor Density | No information available. |
| Viscosity | No information available. |
| Boiling Point/Range | No information available. |
| Melting Point/Range | 175°C / 347°F |
| Decomposition temperature | No information available. |
| Flash Point | No information available. |
| Evaporation Rate | No information available. |
| Specific Gravity | 0.830 |
| Solubility | Soluble in water |
| log Pow | No data available |
| Molecular Weight | 147.02 |
| Molecular Formula | Ca Cl ₂ · 2 H ₂ O |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Stability | Hygroscopic. |
| Conditions to Avoid | Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Hydrogen chloride gas |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions . | None under normal processing.. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|--------------------|--------------------|-----------------|
| Calcium chloride | 1000 mg/kg (Rat) | 2630 mg/kg (Rat) | Not listed |

| | |
|---|---|
| Irritation | Irritating to eyes |
| Toxicologically Synergistic Products | No information available. |
| <u>Chronic Toxicity</u> | |
| Carcinogenicity | There are no known carcinogenic chemicals in this product |
| Sensitization | No information available. |
| Mutagenic Effects | No information available. |
| Reproductive Effects | No information available. |
| Developmental Effects | No information available. |
| Teratogenicity | No information available. |
| Other Adverse Effects | See actual entry in RTECS for complete information. |
| Endocrine Disruptor Information | No information available |

12. ECOLOGICAL INFORMATION

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Ecotoxicity

Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-----------------------------|------------------|--|------------|---------------------|
| Calcium chloride, dihydrate | Not listed | Lepomis macrochirus: LC50: 10650 mg/L/96h | Not listed | EC50: 3005 mg/L/48h |
| Calcium chloride | Not listed | Lepomis macrochirus: LC50: 10650 mg/L/96h | Not listed | EC50: 52 mg/L/48h |

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

| Component | log Pow |
|-----------------------------|---------|
| Calcium chloride, dihydrate | 0.05 |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | CHINA | KECL |
|-----------------------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|---------------|
| Calcium chloride, dihydrate | - | - | - | - | - | | X | X | X | X | - |
| Calcium chloride | X | X | - | 233-140-8 | - | | X | X | X | X | KE-04496 X |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

SARA 311/312 Hazardous Categorization

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

Clean Water Act

Not applicable

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA

Not Applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Not applicable

U.S. Department of Transportation

| | |
|-----------------------------|---|
| Reportable Quantity (RQ): | N |
| DOT Marine Pollutant | N |
| DOT Severe Marine Pollutant | N |

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2B Toxic materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS