

MSDS# 03901

Section 1 - Chemical Product and Company Identification

MSDS Name: Calcium chloride dihydrate
Catalog Numbers: AC123350000, AC123350025, AC123350100, AC207780000, AC207780010, AC207780025, AC207780025, AC423520000, AC423520250, AC423525000, BP510-100, BP510-250, BP510-500, C69-50, C69-500, C69-500LC, C70-500, C79-3, C79-3LC, C79-500, NC9354438, NC9715099, NC9771742, NC9807807
Synonyms: Calcium dichloride dihydrate.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#: 10035-04-8
Chemical Name: Calcium chloride dihydrate
%: 99+
EINECS#: unlisted
Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: XI



Risk Phrases: 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. Hygroscopic (absorbs moisture from the air). May cause skin and respiratory tract irritation.
Target Organs: Blood, central nervous system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: May cause skin irritation. May cause dermatitis. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: Laboratory experiments have resulted in mutagenic effects. Chronic exposure may cause blood effects. Exposure to high concentrations may cause central nervous system depression. Animal studies have reported the development of tumors.

Section 4 - First Aid Measures

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

Eyes: eyelids. Get medical aid.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Do not induce vomiting. Get medical aid if irritation or symptoms occur.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 1;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Calcium chloride dihydrate	none listed	none listed	none listed
Calcium chloride anhydrous	none listed	none listed	none listed

OSHA Vacated PELs: Calcium chloride dihydrate: None listed Calcium chloride anhydrous: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: 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: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white - slightly beige

Odor: odorless

pH: 4.5 - 6.5 (100 g/L aq.sol.)

Vapor Pressure: 0.01 mm Hg @ 20 deg C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 175 deg C (347.00°F)

Decomposition Temperature: Not available

Solubility in water: 1000 g/L (0°C)

Specific Gravity/Density: 0.830

Molecular Formula: CaCl₂·2H₂O

Molecular Weight: 147.02

Section 10 - Stability and Reactivity

Chemical Stability:	Hygroscopic: absorbs moisture or water from the air.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials	Water, strong acids, bromine trifluoride, zinc, polymerizable compounds (e.g. butadiene, methyl acrylate, styrene, vinyl chloride).
Hazardous Decomposition Products	Hydrogen chloride, calcium oxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 10035-04-8: EV9810000 CAS# 10043-52-4: EV9800000 RTECS: Not available. RTECS:
LD50/LC50:	CAS# 10043-52-4: Oral, mouse: LD50 = 1940 mg/kg; Oral, rabbit: LD50 = 1384 mg/kg; Oral, rat: LD50 = 1 gm/kg;
Carcinogenicity:	Calcium chloride dihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Calcium chloride anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other:	Do not empty into drains.
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Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not Regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36 Irritating to eyes.

Safety Phrases:

S 22 Do not breathe dust.

S 24 Avoid contact with skin.

WGK (Water Danger/Protection)

CAS# 10035-04-8: Not available

CAS# 10043-52-4: 0

Canada

CAS# 10043-52-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

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

CAS# 10035-04-8 is not listed on Canada's Ingredient Disclosure List.

CAS# 10043-52-4 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 10035-04-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

CAS# 10043-52-4 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/03/1998

Revision #8 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
