Material Safety Data Sheet
Calcium chloride solution

MSDS# 03902

Section 1 - Chemical Product and Company Identification

MSDS Name: Calcium chloride solution
Catalog Numbers: SC10-1
Synonyms: None

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#: 7732-18-5
Chemical Name: Water
%: 97.2
EINECS#: 231-791-2

Risk Phrases:

CAS#: 10043-52-4
Chemical Name: Calcium chloride
%: 2.75
EINECS#: 233-140-8

Hazard Symbols: None listed

Text for R-phrases: see Section 16

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! May cause eye, skin, and respiratory tract irritation. Target Organs: No data found.

Potential Health Effects

Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: May cause irritation of the digestive tract.
Inhalation: May cause respiratory tract irritation.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Get medical aid. Immediately flush eyes with plenty of water for at least 15 minutes.
Skin: 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. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Not available

Section 6 - Accidental Release Measures

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

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA – Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Calcium chloride</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Water: None listed Calcium chloride: 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 chemical splash goggles.
Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to minimize contact with skin.

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

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Color: clear, colorless
Odor: none reported
pH: Acidic.
Vapor Pressure: 14 mm Hg @ 16 deg C
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 100 deg C ( 212.00°F)
Freezing/Melting Point: 0 deg C ( 32.00°F)
Decomposition Temperature: Not available
Solubility in water: Completely soluble in water.
Specific Gravity/Density: Not available.
Molecular Formula: CaCl2
Molecular Weight: 110.986

Section 10 - Stability and Reactivity

Chemical Stability: Stable.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other Materials Strong oxidizing agents.
Hazardous Decomposition Products Hydrogen chloride.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7732-18-5: ZC0110000
CAS# 10043-52-4: EV9800000
RTECS: CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;

LD50/LC50: RTECS:
CAS# 10043-52-4: Oral, mouse: LD50 = 1940 mg/kg;
Oral, rabbit: LD50 = 1384 mg/kg;
Oral, rat: LD50 = 1 gm/kg;

Carcinogenicity: Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Calcium chloride - 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

Not available

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: Not available
Risk Phrases:
Safety Phrases:
  S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
CAS# 7732-18-5: Not available
CAS# 10043-52-4: 0

Canada
CAS# 7732-18-5 is listed on Canada's DSL List
CAS# 10043-52-4 is listed on Canada's DSL List
Canadian WHMIS Classifications: Not available
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# 7732-18-5 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# 7732-18-5 is listed on the TSCA Inventory.
CAS# 10043-52-4 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 9/02/1997
Revision #7 Date 7/20/2009

Reviewed
2012.08.09
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The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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.

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