Material Safety Data Sheet
Calcium sulfate, dihydrate

ACC# 90113

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Calcium sulfate, dihydrate
**Catalog Numbers:** S76764
**Synonyms:** Alabaster; annaline; gypsum; gypsum stone; land plaster; magnesia white; mineral white; precipitated calcium sulfate.

**Company Identification:**
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

*For information, call:* 201-796-7100
*Emergency Number:* 201-796-7100
*For CHEMTREC assistance, call:* 800-424-9300
*For International CHEMTREC assistance, call:* 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10101-41-4</td>
<td>Calcium sulfate dihydrate</td>
<td>100</td>
<td>unlisted</td>
</tr>
</tbody>
</table>

**Hazard Symbols:** None listed.
**Risk Phrases:** None listed.

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid. **Caution!** May cause eye, skin, and respiratory tract irritation.

**Target Organs:** None known.

**Potential Health Effects**

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** Not available.

Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**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:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**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.

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

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: ; Flammability: ; Instability:

### 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. Reduce airborne dust and prevent scattering by moistening with water. Clean up spills immediately, observing precautions in the Protective Equipment section.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry place. Keep container closed when not in use.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate dihydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>Calcium sulfate anhydrous</td>
<td>10 mg/m³ TWA (particulate matter containing no asbestos and &lt; 1% crystalline silica)</td>
<td>10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Calcium sulfate dihydrate: No OSHA Vacated PELs are listed for this chemical. Calcium
sulfate anhydrous: 15 mg/m3 TWA; 5 mg/m3 TWA (respirable fraction)  

**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 minimize contact with skin.  
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.  

---  

### Section 9 - Physical and Chemical Properties  

**Physical State:** Solid  
**Appearance:** White  
**Odor:** None reported.  
**pH:** Not available.  
**Vapor Pressure:** Not available.  
**Vapor Density:** Not available.  
**Evaporation Rate:** Not available.  
**Viscosity:** Not available.  
**Boiling Point:** Not available.  
**Freezing/Melting Point:** Not available.  
**Decomposition Temperature:** Not available.  
**Solubility:** Slightly soluble in water.  
**Specific Gravity/Density:** 2.32  
**Molecular Formula:** CaO4S.2H2O  
**Molecular Weight:** 172.1644  

---  

### Section 10 - Stability and Reactivity  

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Dust generation.  
**Incompatibilities with Other Materials:** No significant incompatibilities identified with common materials and contaminants.  
**Hazardous Decomposition Products:** Oxides of sulfur, calcium oxide.  
**Hazardous Polymerization:** Has not been reported.  

---  

### Section 11 - Toxicological Information  

**RTECS#:**  
**CAS# 10101-41-4:** EW4150000  
**CAS# 7778-18-9:** WS6920000  
**LD50/LC50:**  
Not available.  
Not available.  

**Carcinogenicity:**  
**CAS# 10101-41-4:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.  
**CAS# 7778-18-9:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.  
**Epidemiology:** No data available.  

https://fscimage.fishersci.com/msds/90113.htm  
11/15/2004
Teratogenicity: No data available.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>Not reviewed.</td>
<td></td>
<td></td>
<td></td>
<td>No information available.</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 10101-41-4 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# 7778-18-9 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

**Section 313**
No chemicals are reportable under Section 313.

**Clean Air Act:**
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
CAS# 10101-41-4 can be found on the following state right to know lists: Minnesota.
CAS# 7778-18-9 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

**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# 10101-41-4: 0
CAS# 7778-18-9: 0

**Canada - DSL/NDSL**
CAS# 7778-18-9 is listed on Canada's DSL List.

**Canada - WHMIS**
WHMIS: Not available.

**Canadian Ingredient Disclosure List**

**Exposure Limits**
CAS# 10101-41-4: OEL-THE NETHERLANDS:TWA 10 mg/m3 OEL-SWITZERLAND:TWA 6 mg/m3 OEL-UNITED KINGDOM:TWA 10 mg/m3 (total dust) JAN9 OEL-UNITED KINGDOM:TWA 5 mg/m3 (resp. dust)
CAS# 7778-18-9: OEL-AUSTRALIA:TWA 10 mg/m3 OEL-BE.LGIUM:TWA 10 mg/m3 OEL-UNITED KINGDOM:TWA 10 mg/m3 (total dust) JAN9 OEL-UNITED KINGDOM:TWA 5 mg/m3 (resp. dust) OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

---

**Section 16 - Additional Information**

**MSDS Creation Date:** 9/02/1997

**Revision #3 Date:** 3/18/2003

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 Fisher 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, however arising, even if Fisher has been advised of the possibility of such damages.