Material Safety Data Sheet
Magnesium chloride, ACS

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Magnesium chloride, ACS
**Catalog Numbers:** LC16380
**Synonyms:** Magnesium dichloride hexahydrate.
**Company Identification:**
LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238
**Company Phone Number:** (412) 826-5230
**Emergency Phone Number:** (800) 424-9300
**CHEMTREC Phone Number:** (800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7791-18-6</td>
<td>Magnesium chloride hexahydrate</td>
<td>100%</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**Emergency Overview**

*Appearance:* white to gray-white solid
*Caution!* May cause eye irritation. Hygroscopic (absorbs moisture from air).
*Target Organs:* No data found.

**Potential Health Effects**

*Eye:* May cause mild eye irritation.

*Skin:* May cause skin irritation.

*Ingestion:* Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

*Inhalation:* May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain, and increased white blood cell count.

*Chronic:* May cause kidney damage.
Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

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

Ingestion:
Do not induce vomiting. If victim is conscious, give 2-4 glasses of water or milk. Get medical aid at once.

Inhalation:
Give artificial respiration if necessary. Move victim to fresh air. Keep victim warm and at rest. Get medical aid at once. Do not use mouth-to-mouth resuscitation.

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. Material is noncombustible.

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

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
Health-1; flammability-0; reactivity-0

Explosion Limits:
Lower: n/a  Upper: n/a

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. Clean up spills immediately. Avoid creating airborne particles. Provide ventilation.
Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Use with adequate ventilation. Do not get on skin or in eyes. Do not ingest or inhale. Avoid breathing dust, vapor, mist, or gas.

Storage:
Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. 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</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>hexahydrate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Magnesium chloride hexahydrate: No OSHA Vacated PELs are listed.

Personal Protective Equipment

Eyes:
Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear appropriate protective eyeglasses or chemical safety goggles as described in 29 CFR 1910.133.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

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

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: White to gray white
Odor: Odorless
pH: 7.0 (aqueous solution)
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
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Boiling Point: Not available
Freezing/Melting Point: 117°C
Decomposition Temperature: Not available
Solubility in water: Freely soluble
Specific Gravity/Density: 1.56
Molecular Formula: MgCl2.6H2O
Molecular Weight: 203.31

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal storage and handling conditions. Deliquescent (tending to absorb atmospheric water vapor and become liquid.)

Conditions to Avoid:
Dust generation, moisture

Incompatibilities with Other Materials:
Attacks metals in the presence of moisture.

Hazardous Decomposition Products:
Chlorine, hydrogen chloride.

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7791-18-6: OM2975000

LD50/LC50:
CAS# 7791-18-6:
Oral, mouse: LD50 = 7600 mg/Kg;
Oral, rat: LD50 = 8100 mg/Kg.

Carcinogenicity:
CAS# 7791-18-6: Not listed by ACGIH, IARC, NTP, or CA Proposition 65.

Epidemiology:
No information available.

Teratogenicity:
No information available.

Reproductive:
No information available.

Mutagenicity:
No information available.

Neurotoxicity:
No information available.

Section 12 - Ecological Information

No information available.
Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 7791-18-6 is not listed 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 (40 CFR 720.3(u)(2)).
CAS# 7786-30-3 (anhydrous) is listed on the TSCA inventory. Does not have a Significant New Use Rule.
SARA Reportable Quantities (RQ):
CAS# 7791-18-6 does not have a RQ.
CERCLA/SARA Section 313:
Not reportable under Section 313.
OSHA - Highly Hazardous:
Not considered highly hazardous by OSHA.

US State
State Right to Know:
CAS# 7791-18-6 is not listed on the following state right to know lists: California, Florida, New Jersey, Pennsylvania, Minnesota, and Massachusetts.
California Regulations:
Not listed.

European/International Regulations
Canadian DSL/NDSL:
Anhydrous magnesium chloride (CAS# 7786-30-3) is listed on Canada’s DSL List.
Canada Ingredient Disclosure List:
CAS# 7791-18-6 is not listed on the Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: July 24, 2006
Revision Date: None
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