Material Safety Data Sheet
Magnesium Sulfate, Heptahydrate, ACS

Section 1 - Chemical Product and Company Identification

MSDS Name:
Magnesium Sulfate, Heptahydrate, ACS

Catalog Numbers:
LC16490

Synonyms:
Epsom salts

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>10034-99-8</td>
<td>Magnesium sulfate heptahydrate</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: Colorless solid

Caution! May cause eye, skin, and respiratory tract irritation. May cause central nervous system depression. The toxicological properties of this material have not been fully investigated.

Target Organs: Central nervous system, gastrointestinal system

Potential Health Effects

Eye:
May cause mild eye irritation.

Skin:
May cause skin irritation.

Ingestion:
May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation:
May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:
Exposure to high concentrations may cause central nervous system depression.
Material Safety Data Sheet
Magnesium Sulfate, Heptahydrate, ACS

Section 4 - First Aid Measures

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

Skin:
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:
Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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.

Antidote:
The use of calcium gluconate to precipitate the oxalate should be determined by only qualified medical personnel.

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:
Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature:
Not applicable.

Flash Point:
Not applicable.

NFPA Rating:
CAS# 10034-99-8: H- 1, F- 0, I- 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, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.
Material Safety Data Sheet
Magnesium Sulfate, Heptahydrate, ACS

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:
Store in a cool, dry place.

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 ventilation to keep airborne concentrations low.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name:</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium sulfate heptahydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Magnesium sulfate heptahydrate: No OSHA Vacated PELs are listed for this chemical.

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

<table>
<thead>
<tr>
<th>Property:</th>
<th>Value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State:</td>
<td>Solid</td>
</tr>
<tr>
<td>Color:</td>
<td>Transparent to white</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH:</td>
<td>5.0 – 8.2 (5% solution)</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing/Melting Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>1124°C</td>
</tr>
</tbody>
</table>
Material Safety Data Sheet
Magnesium Sulfate, Heptahydrate, ACS

Solubility in water: Soluble
Specific Gravity/Density: 1.678
Molecular Formula: MgSO₄·7H₂O
Molecular Weight: 246.48

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Dust generation, excess heat.

Incompatibilities with Other Materials:
No significant incompatibilities identified with common materials and contaminants.

Hazardous Decomposition Products:
Oxides of sulfur.

Hazardous Polymerization:
Will not occur.

Section 11 - Toxicological Information

RTECS:
CAS# 10034-99-8: OM4508000

LD50/LC50:
CAS# 10034-99-8: Not available.

Carcinogenicity:
CAS# 10034-99-8: Not listed by ACGIH, IARC, NTP, or California Prop 65.
California: None

Epidemiology:
No information found

Teratogenicity:
No information found

Reproductive:
No information found

Mutagenicity:
No information found

Neurotoxicity:
No information found

Section 12 - Ecological Information

No information found.
Material Safety Data Sheet
Magnesium Sulfate, Heptahydrate, ACS

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# 10034-99-8 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)).

SARA Reportable Quantities (RQ):
None of the chemicals in this material have an RQ.

CERCLA/SARA Section 313:
No chemicals are reportable under Section 313.

OSHA - Highly Hazardous:
None of the chemicals in this product are considered highly hazardous by OSHA.

US State
State Right to Know:
CAS# 10034-99-8 is not present on state lists from California, Pennsylvania, Minnesota, Massachusetts, Florida, or New Jersey.

California Regulations:
None of the chemicals in this product are listed.

European/International Regulations
Canadian DSL/NDSL:
CAS# 10034-99-8 is listed on Canada’s DSL List.

Canada Ingredient Disclosure List:
CAS# 10034-99-8 is not listed on the Canadian Ingredient Disclosure List

Section 16 - Other Information

MSDS Creation Date: June 28, 2007
Revision Date: None

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