SECTION 1: Identification

Product identifier

Product Name  Epsom Salt, Magnesium Sulfate

Other means of identification

Synonyms  Magnesium Sulfate Heptahydrate, Epsom Salts

Recommended use of the chemical and restrictions on use

Recommended Use
1. USP grade: Bath soak, purgative.
3. Technical grade: For industrial use, for correcting magnesium deficiency in crops and for use in animal feed.

Uses advised against  No information available

Details of the supplier of the safety data sheet

Manufacturer Address  Giles Chemical, a Division of Premier Magnesia, LLC, Headquartered in Waynesville, NC 28786

Emergency telephone number

Company Phone Number  828-452-4784
24 Hour Emergency Phone Number  Chemtrec 1-800-424-9300
Emergency Telephone  Chemtrec 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

OSHA Regulatory Status
White or transparent crystalline odorless powder. Noncombustable. At very high temperatures, magnesium oxide, sulfur dioxide and sulfur trioxide may be generated. No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview
The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance: Granular to fine granular  Physical state: Solid  Odor: None

Causes mild irritation to the eyes
No known adverse effects.
Causes nausea, vomiting, abdominal cramps and diarrhea.
Spilled material can be slippery.

Hazards not otherwise classified (HNOC)

Other Information
Unknown Acute Toxicity  100% of the mixture consists of ingredient(s) of unknown toxicity

SECTION 3. Composition / information on ingredients

Synonyms  Magnesium sulfate heptahydrate, Epsom salts

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>magnesium sulfate</td>
<td>10034-99-8</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4. First aid measures

First aid measures

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. (Call a physician if irritation persists).

Skin Contact: Not Applicable.

Inhalation: Remove to fresh air. Administer oxygen if breathing is difficult. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Ingestion: If large quantities of this material are swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
This material is compatible with all extinguishing media.

Unsuitable extinguishing media None.

Specific hazards arising from the chemical
See Section 2 for information on hazards when this material is present in the area of a fire.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear goggles. See Section 8.

Environmental precautions
Environmental precautions Sinks and mixes with water. No adverse effects known.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Sweep, scoop or vacuum discharged material. Flush residue with water.

Prevention of secondary hazards For large spill cleanup: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Sweep, scoop or vacuum discharged material. Flush residue with water. Observe environmental regulations.
SECTION 7. Handling and storage

Precautions for safe handling

Advice on safe handling  Avoid breathing dust. Promptly clean up spills.

Conditions for safe storage, including any incompatibilities

Storage Conditions  Keep containers closed and protected from extremes of temperature and humidity during storage. Recommended storage conditions 68-110°F and 54-87% relative humidity.

Incompatible materials  Metal hydrides and other water reactive materials.

SECTION 8. Exposure controls / personal protection

Control parameters

Exposure Guidelines  This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls  Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection  Wear chemical goggles.

Skin and body protection  Wear gloves if abrasion or irritation occurs.

Respiratory protection  Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910. 134 for level of exposure incurred.

General Hygiene Considerations  Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Granular to fine granular</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>White or transparent</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Values</td>
<td></td>
</tr>
<tr>
<td>Ph</td>
<td>Approx. 6-7</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.76g/cm³</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>71g/100ml at 20°C 91g/100ml at 40°C</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
Other Information

Softening point: No information available
Molecular weight: No information available
VOC Content (%): No information available
Density: No information available
Bulk density: 55-58 lb/ft³

SECTION 10. Stability and reactivity

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
Metal hydrides and other water reactive materials.

Hazardous Decomposition Products
At very high temperatures, magnesium oxide, sulfur dioxide and sulfur trioxide may be generated.

SECTION 11. Toxicological information

Information on likely routes of exposure

Product Information: No data available
  Inhalation: No data available.
  Eye contact: Irritating to eyes.
  Skin Contact: No data available.
  Ingestion: No data available.

Information on toxicological effects

Symptoms: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization: No information available.
Germ cell mutagenicity: No information available.
Carcinogenicity: No information available.
Reproductive toxicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Aspiration hazard: No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity: 100% of the mixture consists of ingredient(s) of unknown toxicity.
SECTION 12. Ecological information

Ecotoxicity

This material is not persistent in aquatic systems.

Persistence and degradability

No information available.

Bioaccumulation

Material does not bioaccumulate.

Mobility

Sinks and mixes with water.

Other adverse effects

No information available

SECTION 13. Disposal considerations

Waste treatment methods

Disposal of wastes

This product does not exhibit any characteristics of a hazardous waste. The product is suitable for landfill disposal. Follow all applicable federal, state and local regulations for safe disposal.

Contaminated packaging

Do not reuse container.

SECTION 14. Transport information

DOT

Not regulated by DOT as a hazardous material. No hazard class, label or placard required, no UN or NA number assigned.

SECTION 15. Regulatory information

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Does not comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>
CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations
None

U.S. EPA Label Information
EPA Pesticide Registration Number Not Applicable

SECTION 16. Other information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>Flammability</td>
<td>Physical hazards</td>
<td>Personal protection</td>
</tr>
</tbody>
</table>

Issue Date 17-February 2015
Revision Date 01-February 2019
Revision Note No information available

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet