1. Identification

**Product Name**  
Magnesium Hydroxide (USP/FCC)

**Cat No.**  
M342-500

**Synonyms**  
Magnesia magma; Magnesium Hydrate, Milk of Magnesia.

**Recommended Use**  
Laboratory chemicals.

**Uses advised against**  
No Information available

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2. Hazard(s) identification

**Classification**  
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Target Organs - Respiratory system.</td>
<td></td>
</tr>
</tbody>
</table>

**Label Elements**

**Signal Word**  
Warning

**Hazard Statements**  
Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation
Magnesium Hydroxide (USP/FCC)

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Skin
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium hydroxide</td>
<td>1309-42-8</td>
<td>95 - 100</td>
</tr>
</tbody>
</table>

4. First-aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

Ingestion
Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects
No information available.

Notes to Physician
Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media
Dry chemical.

Unsuitable Extinguishing Media
No information available

Flash Point
No information available

Method -
No information available
## 6. Accidental release measures

### Personal Precautions
Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

Avoid contact with skin, eyes and clothing.

### Environmental Precautions
Avoid release to the environment.

### Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

## 7. Handling and storage

### Handling
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

### Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls / personal protection

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

### Engineering Measures
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

#### Eye/face Protection
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 and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

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

### Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Physical State
Solid

### Appearance
White

### Odor
Odorless

### Odor Threshold
No information available

### pH
9.5 - 10.5 (Slurry)

### Melting Point/Range
350 °C / 662 °F

### Boiling Point/Range
No information available

### Flash Point
No information available
Magnesium Hydroxide (USP/FCC)

Evaporation Rate No information available
Flammability (solid, gas) No information available
Flammability or explosive limits
  Upper No data available
  Lower No data available
Vapor Pressure No information available
Vapor Density No information available
Relative Density 2.36 (H2O=1)
Solubility Insoluble in water
Partition coefficient; n-octanol/water No data available
Autoignition Temperature No information available
Decomposition temperature No information available
Viscosity No information available
Molecular Formula Mg(OH)2
Molecular Weight 58.3178

10. Stability and reactivity

Reactive Hazard None known, based on information available
Stability Hygroscopic. Air sensitive.
Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat. Exposure to air. Exposure to moist air or water.
Incompatible Materials Powdered metals
Hazardous Decomposition Products Magnesium oxides
Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity
Product Information No acute toxicity information is available for this product
Component Information
Toxicologically Synergistic Products No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Irritation Irritating to eyes, respiratory system and skin
Sensitization No information available
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium hydroxide</td>
<td>1309-42-8</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects No information available
Reproductive Effects No information available.
Developmental Effects No information available.
Teratogenicity No information available.
STOT - single exposure Respiratory system
STOT - repeated exposure None known
Aspiration hazard No information available
Symptoms / effects, both acute and delayed: No information available

Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated.

### 12. Ecological information

**Ecotoxicity**
Do not empty into drains.

**Persistence and Degradability:** No information available

**Bioaccumulation/ Accumulation:** No information available.

**Mobility:** No information available.

### 13. Disposal considerations

**Waste Disposal Methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

**DOT:** Not regulated

**TDG:** Not regulated

**IATA:** Not regulated

**IMDG/IMO:** Not regulated

### 15. Regulatory information

All of the components in the product are on the following Inventory lists: Australia X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines Japan

#### International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium hydroxide</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>215-170-3</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Legend:**
- X - Listed
- E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - Indicates a commenced PMN substance
- R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

#### U.S. Federal Regulations

**TSCA 12(b):** Not applicable

**SARA 313:** Not applicable

#### SARA 311/312 Hazardous Categorization

- **Acute Health Hazard:** Yes
- **Chronic Health Hazard:** No
- **Fire Hazard:** No
- **Sudden Release of Pressure Hazard:** No
Magnesium Hydroxide (USP/FCC)

Reactive Hazard
No

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA
Not applicable

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

State Right-to-Know
Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ):
N

DOT Marine Pollutant
N

DOT Severe Marine Pollutant
N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade
No information available

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class
D2B  Toxic materials

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

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17-Sep-2014

Revision Date
17-Sep-2014

Print Date
17-Sep-2014

Revision Summary
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer
The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS