

Date of Preparation: 20 JAN 2003

Review Date: 10 SEP 2010

Conforms to: O.S.H.A HCS - W.H.M.I.S

MSDS No. 110

## **1. Product and Company Identification**

**Manufacturer/Supplier:**AluChem, Inc.  
1 Landy Lane  
Reading, OH 45215 USATelephone: 513-733-8519  
Fax: 513-733-3123  
Emergency: 800-336-8519AluChem of Jackson, Inc.  
14782 Beaver Pike  
Jackson, OH 45640 USATelephone: 740-286-2455  
Fax: 740-286-2004  
Emergency: 800-336-8519**Product Name: MAGNESIUM HYDROXIDE**Other Designations:  
All ACMH-95 designations.

## **2. Composition / Information on Ingredients**

**CAS No.**  
1309-42-8**Chemical or Component**  
Magnesium Hydroxide**% by weight**  
95-100**Hazard Symbols:** None listed.**Risk Phrases:** None listed.

## **3. Hazards Identification**

**Emergency Overview:**

White to off white powder or slurry with no odor. Inhalation of high concentrations of dusts of this substance may cause eye and upper respiratory tract irritation. This material is not flammable and does not support combustion. Primary routes of entry are inhalation, skin contact and eye contact.

**Ingestion:** May cause mild irritation.**Inhalation:** May cause upper respiratory tract irritation.**Eye Contact:** May cause mild irritation.**Skin Contact:** May cause mild irritation.**Hazard Description****Medical conditions generally aggravated by exposure :**

Asthma, chronic lung conditions or diseases and skin rashes.

**Toxicological Data:** See item 11.**Carcinogenicity:** Not listed by IARC or NTP as a carcinogen.

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**4. First Aid Measures****Ingestion:**

Do not induce vomiting. If swallowed, dilute by drinking large amounts of water. Consult a physician or other qualified medical personnel for further information and/or treatment.

**Inhalation:**

Remove to fresh air. Check for clear airway, breathing and presence of pulse. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Consult a physician or other qualified medical personnel.

**Eye Contact:**

Flush eyes with ample amounts of water for at least 15 minutes. Consult a physician or other qualified medical personnel.

**Skin Contact:**

Wash with soap and water for at least 15 minutes. Consult a physician or qualified medical personnel if the condition persists.

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**5. Fire Fighting Measures****Fire / Explosion Hazards:**

This product does not present fire or explosion hazards as supplied.

**Extinguishing Media:**

As deemed suitable by the environment.

**Fire Fighting Equipment:**

Respiratory and eye protection required for fire fighting personnel. Full protective equipment (Bunker Gear) and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.

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**6. Accidental Release Measures****Person-related Safety Precautions:**

Avoid contact with skin and eyes.

**Cleaning and Collecting Spills:**

Vacuum or sweep material and place in a disposal container. Avoid dusting. Ensure adequate ventilation.

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**7. Handling and Storage****Handling:**

Ensure good ventilation in all work areas.  
Minimize dusting and dust accumulation.

**Storage:**

Store in dry, protected storage or in case of slurry product, then in closed and sealed containers.

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**8. Exposure Controls and Personal Information****Exposure Guidelines:**

1309-42-8 Magnesium Hydroxide

OSHA PEL                      15mg/m<sup>3</sup> (total dust)      5 mg/m<sup>3</sup> (respirable fraction)

**Respiratory Protection:**

Use NIOSH approved respiratory protection in case of insufficient ventilation and where exposure guidelines may be exceeded.

**Skin Protection:**

Wear suitable gloves and long sleeve shirts to avoid skin irritation or injury.

**Eye Protection:**

Use of safety glasses with full side shields is always recommended. Where air turbulence may be present, goggles are also recommended.

**9. Physical and Chemical Properties****Appearance:**

White to off white, granular to fine powder or slurry

**Molecular Formula:**Mg(OH)<sub>2</sub>**Molecular Weight:**

58.32

**Physical State:**

Solid

**Odor:**

None

**Melting Point:**

Decomposes 340°C (650°F)

**Vapor Pressure:**

Not applicable.

**Boiling Point:**

Not Determined.

**Vapor Density:**

Not applicable.

**Flash Point:**

Not Applicable.

**Evaporation Rate:**

Not applicable.

**Solubility in Water:**

Negligible (less than 0.1%)

**Oxidizing Properties:**

Not applicable.

**Density:**2.3 g/cm<sup>3</sup>**Lower Flammable Limit:**

None.

**Bulk Density:**775 kg/m<sup>3</sup> (48 lb/ft<sup>3</sup>)**Upper Flammable Limit:**

None.

**pH - 20°C:**

Not determined

**Odor Threshold:**

Not determined.

**Autoignition:**

Product is not self igniting.

**Partition Coefficient:**

Not applicable.

**Danger of Explosion:**

None present.

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**10. Stability and Reactivity****Stability:** Product is stable when used in accordance with specifications.**Conditions to Avoid:** Incompatible materials.**Incompatibilities with Other Materials:** Strong acids and anhydrides; heat.**Hazardous Decomposition Products:** Steam.**Hazardous Polymerization:** Will not occur.

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**11. Toxicological Information****Acute Toxicity –****Primary Irritant Effect:****On the skin:** Irritant to skin and mucous membranes.**On the eyes:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional Toxicological Information:**RTECS No.: OM3570000 – Magnesium Hydroxide

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**12. Ecological Information****General Notes:**Generally, no adverse conditions are anticipated, but may require compliance with governmental restrictions and permitting requirements prior to release.

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**13. Disposal Considerations****Product -****Recommendation:** Collect in containers or covered dumpsters. If reuse or recycling is not possible, material may be disposed of at an industrial landfill, subject to local regulations and restrictions.**Uncleaned packaging -****Recommendation:** Disposal must be made according to official regulations.**RCRA Status:**If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic nor is it federally (USA) regulated. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24 or state equivalent in the USA).

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**14. Transport Information**

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| <b>U.S. Department of Transportation (DOT):</b> | Not regulated                            |
| <b>U.S. Department of Transportation (DOT)</b>  |  |
| <b>Coast Guard Bulk Hazardous Material:</b>     | Listed (Magnesium Hydroxide slurry only) |
| <b>Canadian TDGR Hazard Class and PIN:</b>      | Not regulated                            |
| <b>Land Transport ADR/RID (cross-boarder):</b>  | Not regulated                            |
| <b>Maritime Transport IMDG:</b>                 | Not regulated                            |
| <b>Marine Pollutant:</b>                        | Not listed                               |
| <b>Air transport ICAO-TI and IATA-DGR:</b>      | Not regulated                            |
| <b>Placards:</b>                                | Not applicable                           |

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**15. Regulations****U.S. Federal Regulations:**

TSCA Chemical Inventory Status: All components of this product are listed.

CERCLA Reportable Quantity: None.

SARA Title III:

Section 302 Extremely Hazardous Substances: None.

Section 304 Emergency Release Reporting: None.

Section 311/312 Hazardous Categories: None.

Section 313 Toxic Categories: None.

Clean Air Act of 1990 – Title VI: This material does not contain nor was it manufactured using ozone depleting chemicals.

**Canadian Regulations:**

WHMIS Classification: Not a controlled product.

DSL (Domestic Substance List): All components of this product are listed on the DSL.

NPRI (National Pollutant Release Inventory): Not subject to mandatory reporting requirements.

IDL (Ingredient Disclosure List): All components of this product are listed on the IDL.

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

**European Union Classification: (EINECS 215-170-3)**

Warning Symbol: None.

Warning Word: None.

Risk Phrases: None.

Safety Phrases: None.

This product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

**USA State Regulations:**California Proposition 65: Not listed.

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**16. Other Information****Hazard Ratings -****NFPA® Ratings:** Health: **0** Flammability: **0** Reactivity: **0** Special: **0****HMIS® III Codes :** Health: **0** Flammability: **0** Physical Hazard: **0** PPE: \*

\*Note: PPE (Personal Protective Equipment) designation to be supplied by user depending upon use in their specific situation. HMIS guidelines do not permit this designation to be specified by the manufacturer/supplier – only by the end user.

**Department Issuing MSDS:**

Technical Services

AluChem, Inc.

1 Landy Lane

Reading, OH 45215 USA

Revision #1 Date: 20 JAN 2003 Supersedes 01 JAN 2002

All sections revised.

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Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. It is the user's responsibility to determine for themselves the suitability of any material for a specific purpose, whether alone or in combination with any other products, and to adopt such safety precautions as may be necessary. This shall in no way establish a legally valid contractual relationship.

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**ABBREVIATIONS:**

|          |  |
|----------|--|
| ACGIH    | American Conference of Governmental Industrial Hygienists  |
| ADR      | European Agreement Concerning the International Carriage of Dangerous Goods by Road                                |
| CAS      | Chemical Abstract Service  |
| CEPA     | Canadian Environmental Protection Act  |
| CERCLA   | Comprehensive Environmental Response, Compensation and Liability Act   |
| CFR      | United States Code of Federal Regulations  |
| CPR      | Cardio-pulmonary Resuscitation   |
| DOT      | United States Department of Transportation   |
| DSL      | Canadian Domestic Substances List  |
| EINECS   | European Inventory of Existing Commercial Chemical Substances  |
| EPA      | United States Environmental Protection Agency  |
| IDL      | Canadian Ingredient Disclosure List  |
| IARC     | International Agency for Research on Cancer  |
| IATA     | International Air Transport Association  |
| IATA-DRG | International Air Transport Association – Dangerous Goods Regulations  |
| ICAO     | International Civil Aviation Organization  |
| ICAO-TI  | International Civil Aviation Organization – Technical Instructions on the Safe Transport of Dangerous Goods by Air |
| IMDG     | International Maritime Dangerous Goods Code  |
| IMO      | International Maritime Organization  |
| NDSL     | Canadian Non-domestic Substances List  |
| NIOSH    | National Institute for Occupational Safety and Health (USA)  |
| NTP      | National Toxicology Program (USA)  |
| OEL      | Occupational Exposure Limit  |
| OSHA     | United States Occupational Health and Safety Administration  |
| PIN      | Product Identification Number  |
| PPE      | Personal Protective Equipment  |
| RCRA     | Resource Conservation and Recovery Act (USA)   |
| RID      | European Agreement Concerning the International Carriage of Dangerous Goods by Rail                                |
| RTECS    | The Registry of Toxic Effects of Chemical Substances   |
| SARA     | Superfund Amendments and Reauthorization Act (USA)   |
| TDGR     | Transportation of Dangerous Goods Regulations  |
| TLV      | Threshold Limit Values   |
| TSCA     | Toxic Substances Control Act (USA)   |
| TWA      | Time Weighted Average  |

cm = centimeter, ft = feet, g = gram, in = inch, kg = kilogram, lb = pound, ml = milliliter,  
 > = greater than