



# IER

Inland Environmental Resources

A CALIX COMPANY

13 April 2022

Version 4

## SAFETY DATA SHEET – ALKA-Mag<sup>+</sup>

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.



### 1. Identification

**Product identifier used on the label:**

ALKA-Mag<sup>+</sup> (Magnesium Hydroxide Slurry)

**Other means of identification:**

Aqueous slurry of magnesium hydroxide, hydrated magnesia, milk of magnesia

**Recommended use of the chemical and restriction on use:**

Industrial chemical process, acid neutralization, wastewater treatment

**Details of the distributor of the safety data sheet:**

Company name: Inland Environmental Resources, Inc.

Address: 1717 S Rustle St Suite 104  
Spokane, WA 99224

Telephone: 800-331-3314

**Emergency telephone number:**

800-535-5053 INFOTRAC

### 2. Hazards Identification

**Classification of the substance or mixture  
in accordance with paragraph (d) of 29 CFR 1910.1200:**

Not classified.

**Signal word:**

No signal word.

**GHS hazard statements:**

Not applicable.

**Symbols:**

No symbol.

**GHS precautionary statements:**

None.

**Other hazards identified during classification process:**

No additional information available.



1717 S Rustle St Suite 104  
800-331-3314

Spokane WA 99224  
Fax: 888-331-3314

[ierwater.com](http://ierwater.com)

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**3. Composition / Information on Ingredients**

**Substance/mixture:**  
Substance

**Other means of identification:**  
Aqueous slurry of magnesium hydroxide, hydrated magnesia, milk of magnesia

**Components:**

<b>INGREDIENT NAME</b>	<b>CONCENTRATION*</b>	<b>CAS NUMBER</b>
Magnesium hydroxide	57-61%	1309-42-8
Oxides and hydroxides of calcium, iron, aluminum, silicon	1-3%	Mixture
Water	Balance	7732-18-5

\*Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the distributor and in the concentrations applicable, are classified as hazardous to health or the environment.

Occupational exposure limits are listed in Section 8.

**4. First-Aid Measures**

Show this safety data sheet to the doctor in attendance.

**Description of necessary measures:**

**Inhalation** If symptoms of exposure are experienced (see Hazards Identification), remove victim to fresh air. Obtain medical attention.

**Skin contact** Not expected to cause a problem. However, if irritation occurs, flush affected area with water. If irritation persists, obtain medical attention.

**Eye contact** If irritation occurs, immediately flush eyes with water for at least 10 minutes. Obtain medical attention.

**Ingestion** Never give anything by mouth to an unconscious person. If conscious, rinse mouth with and/or drink water. Obtain medical attention.



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**Most important symptoms/effects, acute and delayed:**

The product presents a very low health risk. Dust generated from the dried product is classified as a nuisance dust. Dried product dust is classified as a “nuisance particulate, not otherwise regulated” as specified by ACGIH and OSHA. The excessive, long-term inhalation of mineral dusts may contribute to the development of industrial bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease.

Inhalation	May irritate the respiratory tract on prolonged or repeated contact. May aggravate pre-existing respiratory conditions.
Skin contact	Repeated or prolonged contact may cause irritation.
Eye contact	Particulate is a physical eye irritant.
Ingestion	Ingestion is unlikely. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain and diarrhea.

**Indication of immediate medical attention and special treatment needed, if necessary:** None.

**5. Fire-Fighting Measures**

**Suitable and unsuitable extinguishing media:**

Use extinguishing media appropriate to combustibles in vicinity of fire.

**Specific hazards arising from the chemical:**

Not applicable.

**Special protective equipment and precautions for fire-fighters:**

Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

**Further information:**

NFPA Rating:  
Health – 1  
Flammability – 0  
Instability – 0



**6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment as required. If conditions warrant, clean-up personnel should wear approved respiratory protection, gloves and goggles to prevent irritation from contact and/or inhalation.

**Methods and materials for containment and cleaning up:**

Pick up spills without creating dust from dried product. Place material into container, and cover. Hold in sealed container for disposal.



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**Environmental precautions:**

There are no ingredients present which, within the current knowledge of the distributor and in the concentrations applicable, are classified as hazardous to the environment.

**7. Handling and Storage**

**Precautions for safe handling:**

Product may present a nuisance dust hazard if allowed to dry out. Avoid inhalation of dust. Clean area frequently to avoid dust buildup. Wear applicable personal protective equipment as indicated in Section 8.

**Conditions for safe storage, including any incompatibilities:**

Store in an agitated tank to prevent settling of solids. Do not store in aluminum tank. Do not allow product to freeze.

**Materials to avoid:**

Keep away from incompatible materials such as interhalogens and strong acids.

**8. Exposure Controls/Personal Protection**

**Exposure limits:**

Unites States:

<b>INGREDIENT NAME</b>	<b>SOURCE</b>	<b>TWA</b>	<b>FORM</b>
Water	No exposure limits noted		
Magnesium hydroxide	ACGIH TLV OSHA PEL	10 mg/m <sup>3</sup> 15 mg/m <sup>3</sup>	Total particulate Total particulate

**Appropriate engineering controls:**

Wherever possible, use engineering controls to minimize inhalation of dried product dust. Engineering controls may include process enclosure and/or local exhaust ventilation.

**Individual protection measures, personal protective equipment:**

Skin protection:

Protective gloves and long sleeve clothing are recommended when repeated or prolonged contact with the slurry is likely.

Respiratory protection:

If adequate engineering controls are not available, wear respirator approved by NIOSH/MSHA in accordance with requirements of 29 CFR 1910.134 for dried product dust, as applicable. In conditions of oxygen deficiency, or where airborne concentrations of dried product dust exceed 100 mg/m<sup>3</sup>, wear positive pressure or pressure demand supplied air respiratory protection or SCBA.

Eye protection:

Safety glasses are recommended.



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**9. Physical and Chemical Properties**

Appearance – physical state	Aqueous slurry
Appearance – color	White to light brown
Odor	Odorless
Odor threshold	Not applicable
pH	10.5-11.2
Melting point/freezing point	Decomposes to MgO @ 350°C
Initial boiling point & boiling range	100°C (water)
Flash point	Not applicable
Evaporation rate	Same as water
Flammability (solid, gas)	Not flammable
Lower & upper explosive (flammable) limits	Not applicable
Vapor pressure	Not applicable
Vapor density (Air=1)	Not applicable
Relative density	12.1-12.5 lbs/gal @ 25°C
Solubility	0.0009 g/100 ml @ 20°C
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Specific gravity	1.45-1.5 g/mL
Viscosity	500-1000 cP
% Volatiles	0

**10. Stability and Reactivity**

**Reactivity:**

Not applicable.

**Chemical stability:**

Stable under normal storage conditions.

**Possibility of hazardous reactions:**

Excessive heat may be generated in the presence of strong acids.

**Conditions to avoid:**

Avoid excessive temperatures, which will cause product to produce steam and/or decompose to magnesium oxide. Do not store in aluminum container, as product may produce hydrogen gas.

**Incompatible materials:**

Strong acids, maleic anhydride, aluminum metal, interhalogens (e.g. bromine pentafluoride, chlorine tri-fluoride), phosphorous pentachloride



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**Hazardous decomposition products:**

Product may present a nuisance dust hazard if allowed to dry out. Product will decompose to magnesium oxide in temperatures in excess of 350°C. Steam may be generated upon heating.

**Hazardous Polymerization:**

Does not occur.

**11. Toxicological Information**

Toxicological effects and available data used to identify those effects:

**Information on likely routes of exposure:**

Inhalation	No
Ingestion	Yes
Skin contact	Yes
Eye contact	Yes

**Symptoms related to the physical, chemical and toxicological characteristics:**

Inhalation	No data available.
Ingestion	May cause gastrointestinal disturbances.
Skin contact	May cause irritancy of skin or nasal passages.
Eye contact	May cause irritancy of eyes.

**Delayed and immediate effects and also chronic effects from short- and long-term exposure:**

Inhalation	No data available.
Ingestion	May cause gastrointestinal disturbances.
Skin contact	May cause irritancy of skin or nasal passages.
Eye contact	May cause irritancy of eyes.

**Numerical measures of toxicity (acute toxicity estimates):**

No data available.

**Carcinogen status:**

INGREDIENT NAME	NTP LIST	IARC MONOGRAPHS	OSHA
Magnesium hydroxide	No	No	No



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## 12. Ecological Information

**Ecotoxicity:**  
No data available.

**Persistence and degradability:**  
No data available.

**Bioaccumulative potential:**  
No data available.

**Mobility in soil:**  
No data available.

**Other adverse effects:**  
No data available.

## 13. Disposal Considerations

**Description of waste residue(s):**  
This product does not meet the criteria of a hazardous waste and is suitable for landfill disposal once the water is evaporated or adsorbed.

**Safe handling & method(s) of disposal of waste residue(s) & contaminated packing:**  
Dispose of in accordance with all applicable federal, state, local and provincial environment regulations.

## 14. Transport Information

This product is not regulated by U.S. DOT, Canadian TGD, and IMDG. This product is not listed as a marine pollutant.

**Transport in bulk (according to Annex II of MARPOL 73/78 and IBC Code):**  
This product is not regulated for transportation. No special requirements. No UN number assigned.

**Special precautions:**  
This product must not be transported in tanks constructed of aluminum.

## 15. Regulatory Information

### U.S. federal safety, health and environmental regulations:

United States inventory (Toxic Substances Control Act [TSCA] 8b):  
Magnesium hydroxide is listed on the Chemical Substances Inventory of the TSCA.  
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (40 CFR 302.4):

Magnesium hydroxide is not listed as a hazardous substance.  
Superfund Amendments & Reauthorization Act (SARA) 302 Extremely Hazardous Substances:

Magnesium hydroxide is not listed as an extremely hazardous substance.  
Superfund Amendments & Reauthorization Act (SARA) 304 Emergency Release Notification:

Notification is not required for magnesium hydroxide.



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Superfund Amendments & Reauthorization Act (SARA) 311 OSHA Hazard Communications Standard:

<b>FIRE HAZARD</b>	<b>SUDDEN RELEASE OF PRESSURE</b>	<b>REACTIVE</b>	<b>IMMEDIATE (ACUTE) HEALTH HAZARD</b>	<b>DELAYED (CHRONIC) HEALTH HAZARD</b>
No	No	No	No	No

Superfund Amendments & Reauthorization Act (SARA) 312 OSHA Hazard Chemical Inventory Reporting:

SDS, chemical inventory, and Tier I/II reporting are not applicable for magnesium hydroxide.

Superfund Amendments & Reauthorization Act (SARA) 313 Toxic Release Inventory:

Magnesium hydroxide is not subject to Form R reporting.

Clean Air Act (CAA) Section 112 (r) Air Pollutants:

Magnesium hydroxide is not listed as an air pollutant under the U.S. Clean Air Act, Section 112 (r) (40 CFR 61).

**U.S. state safety, health and environmental regulations:**

California Proposition 65:

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

**16. Other Information**

**Date of preparation:**

This Safety Data Sheet was prepared by Inland Environmental Resources, Inc. on April 13, 2022

**Changes to previous version:**

Stationary only.

**Inland Environmental Resources, Inc.** provides the foregoing information in good faith and makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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