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Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Material / Product Name(s): HyMag 85-95, UltraMag 10, UltraMag 60-90, UltraMag 85-95

CAS Number: 1309-42-8

Chemical Family: Mineral

General Use: A specifically selected and sized brucite/marble ore.

Manufacturer / Supplier: Cimbar Performance Minerals
25 Old River Rd.
Cartersville, Ga. 30120
Phone: 1-800-858-6868

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Ingredient name: CAS Number: Percent: IARC/NTP/OSHA: Exposure Limits:
Brucite (MgOH)₂ 1309-42-8 100 No Nuisance Particulate

Typical Chemical Analysis, Wt. %

LOI (H ₂ O) ₂	32.0
Insol	3.3
CaO	2.6
MgO	61.0

The oxides shown in the typical chemical analysis do not exist in the raw brucite as free, uncombined oxides, but exist in complex mineralogical forms.

Identification System

Health Hazard	1
Flammability Hazard	O
Reactivity Hazard	O
Personal Protection	E

Hazardous Ingredients TLV (MG/M³)

Brucite/Calcium Carbonate/Magnesium Carbonate TLV=10 mg/m³; OSHA PEL = 15 mg/m³ (total dust); OSHA PEL=5 mg/m³ (resp. fraction)

Other Particles: TLV= 10 mg/m³; (inhalable/total particulate, not otherwise classified); OSHA PEL=15 mg/m³ (total particulate, not otherwise regulated), OSHA PEL=5 mg/m³ (respirable particulate, not otherwise regulated)

Respirable Crystalline Silica (Quartz) TLV=0.1 mg/m³; MSHA and OSHA PEL=10 mg/m³ + (%SiO₂ +2); MSHA Proposed and OSHA Proposed PEL=0.1 mg/m³

Respirable Dust	MSHA and OSHA PEL= $10 \text{ mg/m}^3 + (\% \text{SiO}_2 + 2)$
Total Dust	MSHA PEL= $30 \text{ mg/m}^3 + (\% \text{SiO}_2 + 3)$; OSHA PEL= $30 \text{ mg/m}^3 + (\% \text{SiO}_2 + 2)$

Chronic exposure to respirable dust in excess of appropriate TLVs has caused pneumoconiosis (Dusty Lung).

Chronic exposure to respirable quartz - containing dust in excess of appropriate TLVs has caused silicosis, a progressive pneumoconiosis.

Symptoms of Silicosis:

Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis is progressive, and symptoms can appear at any time, even years after exposures have caused. Symptoms of silicosis may include (but are not limited to): Shortness of breath, difficulty breathing with or without exertion, coughing, diminished chest expansion, reduction of lung volume, right heart enlargement and/or failure. Persons with Silicosis have an increased risk of pulmonary tuberculosis infection.

Brucite/Limestone is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). In October, 1996, an IARC Working Group reassessing crystalline silica, a component of this product, designated crystalline silica as carcinogenic (Group 1). The NTP indicates that crystalline silica is reasonable anticipated to be a carcinogen (Group 2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

3. HAZARD IDENTIFICATION

HMIS

HEALTH HAZARD	1 - SLIGHT
FLAMMABILITY HAZARD	0 - MINIMAL
REACTIVITY HAZARD	0 - MINIMAL
PERSONAL PROTECTION	B - Glasses, Gloves

EMERGENCY OVERVIEW:

An off white, granular (-3/4 inch) material. Not a fire or spill hazard. Low toxicity. Dust is classified as a “nuisance particulate not otherwise regulated”.

Target Organs: Chronic overexposure may cause lung damage.

Primary route(s) of entry: Inhalation

Acute effects: Particulate may cause eye and upper respiratory irritation.

Chronic effects: 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.

Signs & symptoms of overexposure:

Eye contact: Particulate is a physical eye irritant.

Skin contact: Low toxicity by skin contact

Inhalation: Low toxicity by inhalation route.

Ingestion: An unlikely route or exposure. If ingested in sufficient quantity, may cause

gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, and diarrhea.

4. FIRST AID MEASURES

Eye Contact: Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention.

Skin Contact: Wash affected areas with mild soap and water.

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Ingestion is an unlikely route of exposure. If ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated into the lungs. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

NFPA Code: Flammability: 0 Health: 1 Reactivity: 0 Special: 0

Flash Point: Not Combustible

Unusual Fire Hazard / Extinguishing Media: None

Hazardous Decomposition Products: None

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

6. ACCIDENTAL RELEASE MEASURES

Spill procedures: Carefully, clean up and place material into a suitable container, being careful to avoid creating excessive dust from dried product. If conditions warrant, clean up personnel should wear approved respiratory protection, gloves, and goggles to prevent irritation from contact and/or inhalation.

7. HANDLING AND STORAGE

Storage: No special storage instructions. Minimize dust generation during material handling and transfer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Provide sufficient ventilation, in booth volume and air flow patterns to control mist/dust concentration below allowable exposure limits.

Personal protective equipment: The use of eye protection, gloves and long sleeve clothing is recommended.

Respiration protection: Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910.13 for level of exposure incurred.

Hygienic Practices: Avoid contact with skin, eyes and clothing. After handling this product wash hand before eating or drinking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: The product is an off white, free flowing mixture of coarse and small particles; odorless.

Boiling Point: Losses H₂O at 350⁰ C **Specific Gravity (g/cc):** 3.04

Melting Point: >3800⁰ F (>2100⁰ C) **Bulk Density (lbs./cu.ft.):** 50-80

Water Solubility: Insoluble **% Volatile by volume:** 0

pH (10% aqueous slurry): Insoluble **Evaporation rate:** Not Applicable

10. STABILITY AND REACTIVITY

Hazardous Polymerization: Will not occur

Chemical Incompatibilities: Brucite (magnesium hydroxide) is incompatible with maleic anhydride; is soluble in aqueous acids generating heat and steam.

Hazardous Decomposition Products: Heat and Steam

11. TOXICOLOGICAL INFORMATION

Ecotoxicological / Chemical Fate Information: No data available on any adverse effects of this material on the environment.

12. DISPOSAL

Waste Management/Disposal: 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.

13. TRANSPORT INFORMATION

U S Department of Transportation: Not regulated by DOT as a hazardous material. No hazard class, no label or placard required, no UN or NA number assigned.

Canadian TDG Hazard Class & PIN: Not regulated.

14. REGULATORY INFORMATION

SARA TITLE III: This product does not contain any substances reportable under Sections 302, 304 or 313. Sections 311 and 312 do apply. (Routine Reporting and Chemical Inventories)

TSCA: All substances in this product are listed in the Chemical Substance Inventory of the Toxic Substances Control Act.

CERCLA Hazardous Substance List, RQ: No

California Proposition 65: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive toxins.

15. REGULATORY INFORMATION

ACRONYMS AND REFERENCES USED IN PREPARATION OF MSDS':

ACGIH: American Conference of Governmental Industrial Hygienists

CAS#: CAS Registration Number is an assigned number to identify a material. CAS stands for Chemical Abstracts Service.

CERCLA: Comprehensive Environmental Response, Compensation & Liability Act

EPCRA: Emergency Planning and Community Right-To-Know Act of 1986

HMISTM: Hazardous Materials Identification System (National Paint & Coatings Association)

IARC: International Agency for Research on Cancer

MSHA: Mine Safety and Health Administration

mg/m³: Milligrams per cubic meter

NIOSH: National Institute for Occupational Safety and Health

NFPA: National Fire Protection Association

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit (OSHA)

REL: Recommend Exposure Limit (OSHA)

SARA: Superfund Amendments and Reauthorization Act

TITLE III: Emergency Planning and Community Right-To-Know-Act

Section 302: Extremely Hazardous Substances

Section 304: Emergency Release

Section 311: *Community Right-To-Know*, MSDSs or List of Chemicals

Section 312: *Community Right-To-Know*, Inventory and Location, (Tier I/II)

Section 313: Toxic Chemicals, Toxic Chemical Release Reporting, Form R
TLV: Threshold Limit Values (ACGIH)
TWA: Time Weighted Average
29CFR1910.134: OSHA Respiratory Protection Standard

REFERENCES:

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Clansky, K.B., Suspect Chemicals Sourcebook, 199-2nd Edition, Roytech Publications, Bethesda, Maryland.
Sax, N. Irving and Lewis, R.J. Hawley's Condensed Chemical Dictionary, Eleventh Ed., Van Nostrand Reinhold Co., Inc., NY.
Manufacturers / Suppliers, Material Safety Data Sheets on Raw Materials Used
American National Standard for Hazardous Industrial Chemicals - Material Safety Data Sheets - Preparation, American National Standards Institute, Inc., 11 West 42nd St, New York, NY 10036.

16. OTHER INFORMATION\CONTACT

The information contained herein is based on data available to CIMBAR Performance Minerals and is believed to be correct. However, CIMBAR Performance Minerals makes no warranty, expressed or implied, regarding the accuracy or completeness of this information or the results to be obtained from the use thereof.

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