



MATERIAL SAFETY DATA SHEET

Magnesium Carbonate, Heavy

1. Product Identification

Synonyms:

CAS No.: 23389-33-5

Molecular Weight:

Chemical Formula: $4\text{MgCO}_3 \cdot \text{Mg}(\text{OH})_2 \cdot 5\text{H}_2\text{O}$

Product Codes: M112

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Magnesium Carbonate, Heavy	23389-33-5	90 - 100%	Yes

3. Hazards Identification

EMERGENCY OVERVIEW

CAUTION! MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Orange (General Storage)

Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Inhalation:

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

Ingestion:

Magnesium carbonate is a food additive and non-toxic unless ingested in very large quantities. May cause diarrhea.

Skin Contact:

No adverse effects expected. May cause mild irritation and redness.

Eye Contact:

May cause irritation, redness and pain.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to cardiovascular system. Repeated or prolonged exposure to the substance can produce target organs damage.

4. First Aid Measures**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

Serious Inhalation:

Not available.

Ingestion:

If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Wash exposed area with soap and water. Cover the irritated skin with an emollient. Get medical advice if irritation develops.

Serious Skin Contact:

Not available.

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures**Fire:**

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available

Special Remarks on Explosion Hazards:

Not available.

Fire Extinguishing Media:

Use extinguishing media appropriate for surrounding fire.

Products of Combustion:

Not available.

Fire Hazards in Presence of Various Substances:

Not applicable.

Special Information on Fire Hazards:

Not available.

Fire Fighting Media and Instructions:

Not applicable.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling and Storage**Precautions:**

Do not breathe dust. Keep away from incompatibles such as oxidizing agents, acids.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure Controls/Personal Protection**Airborne Exposure Limits:**

- OSHA Permissible Exposure Limit (PEL):

15 mg/m³ total dust, 5 mg/m³ respirable fraction for nuisance dusts.

- ACGIH Threshold Limit Value (TLV):

10 mg/m³ total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective

clothing might not be sufficient; consult a specialist BEFORE handling this product.

Personal Respirators:

If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White Powder.

Odor:

Odorless.

Solubility:

Negligible (< 0.1%)

Density:

2.95.

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0.

Boiling Point:

No information found.

Melting Point:

No information found.

Vapor Density (Air=1):

Not applicable.

Vapor Pressure (mm Hg):

Not applicable.

Molecular Weight:

Not applicable

Evaporation Rate (BuAc=1):

No information found.

10. **Stability and Reactivity**

Stability:

Stable under ordinary conditions of use and storage. Magnesium carbonate reacts with acids to liberate carbon dioxide.

Conditions to Avoid:

Incompatibles.

Conditions of Instability:

Incompatible materials.

Incompatibilities:

Formaldehyde.

Hazardous Decomposition

Forms magnesium oxide and carbon dioxide when heated to decomposition.

Special Remarks on Reactivity:

Not available.

Corrosivity:

Non-corrosive in presence of glass.

Hazardous Polymerization:

Will not occur.

11. **Toxicological Information**

Routes of Entry:

Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

May cause damage to the following organs: cardiovascular system.

Other Toxic Effects on Humans:

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Chronic Effects on Humans:

Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Nuisance dust

Skin:

May cause skin irritation. Low hazard for usual industrial handling.

Eyes:

May cause eye irritation.

Inhalation:

May cause respiratory tract irritation.

Ingestion:

May cause gastrointestinal tract irritation.

Excess exposure may cause central nervous system depression and cardiac disturbances.

The toxicological properties of this substance have not been fully investigated.

12. **Ecological Information**

Ecotoxicity:

Not available

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The product itself and its products of degradation are not toxic.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information**DOT Classification:**

Not a DOT controlled material.

Identification:

Not applicable.

Special Provisions for Transport:

Not available.

Protective Equipment:

Gloves (impervious). Synthetic apron. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

15. Other Information

NFPA Ratings: Health: **1** Flammability: **0** Reactivity: **0**

Label Hazard Warning:

CAUTION! MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Label Precautions:

Avoid contact with eyes.

Avoid breathing dust.

Use with adequate ventilation.

Wash thoroughly after handling.

Keep container closed.

Label First Aid:

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes while lifting lower and upper eyelids. Call a physician if irritation persists.

Product Use:

Laboratory Reagent.

Revision Information:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.



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