MSDS Number: M0143 * * * * Effective Date: 12/7/07 * * * * * Supercedes: 12/7/05 Magnesium Carbonate, n-Hydrate

1. Product Identification

Synonyms: Magnesium (II) Carbonate, Hydrate; Magnesium carbonate (1:1) hydrate CAS No.: 546-93-0 Molecular Weight: Not applicable to mixtures. Chemical Formula: MgCO3.nH2O Product Codes: 2432, 2436, 2437

2. Composition/Information on Ingredients

Ingredient CAS No Percent Hazardous

------ ------

Magnesium Carbonate 546-93-0 90 - 100% Yes

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate Flammability Rating: 1 - Slight Reactivity Rating: 1 - Slight Contact Rating: 2 - Moderate Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES Storage Color Code: Green (General Storage)

Potential Health Effects

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. Chronic Exposure: No information found. Aggravation of Pre-existing Conditions: No information found.

4. First Aid Measures

Inhalation:

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

Ingestion:

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

Skin Contact:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

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.
Fire Extinguishing Media:
Use extinguishing media appropriate for surrounding fire.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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.

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.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece 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-facepiece 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%) Specific Gravity: 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. 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.

Hazardous Decomposition Products:

Forms magnesium oxide and carbon dioxide when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Formaldehyde.

Conditions to Avoid:

Incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----

---NTP Carcinogen----

Ingredient Known Anticipated IARC Category

----- ----- -----

Magnesium Carbonate (546-93-0) No No None

12. Ecological Information

Environmental Fate: No information found. Environmental Toxicity: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal 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.

14. Transport Information

Not regulated.

15. Regulatory Information

------\Chemical Inventory Status - Part 1\-----

Ingredient TSCA EC Japan Australia

Magnesium Carbonate (546-93-0) Yes Yes Yes Yes

------\Chemical Inventory Status - Part 2\-----

Ingredient Korea DSL NDSL Phil.

----- ---- ----

Magnesium Carbonate (546-93-0) Yes Yes No Yes

------>Federal, State & International Regulations - Part 1\-------SARA 302- -----SARA 313------Ingredient RQ TPQ List Chemical Catg.

Magnesium Carbonate (546-93-0) No No No No

------\Federal, State & International Regulations - Part 2\-------RCRA- -TSCA-Ingredient CERCLA 261.33 8(d)

------ ------ ------

Magnesium Carbonate (546-93-0) No No No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated. Poison Schedule: None allocated. WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. 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.

Wuxi Zehui Chemical Co.,Ltd provides the information contained herein in good faith but makes no representation 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 this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. WUXI ZEHUI CHEMICAL CO.,LTD MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Environmental Health & Safety Phone Number: (510) 882-16489 (CN.)