Material Safety Data Sheet

Magnesium Hydroxide
MSDS# 13405

Section 1 - Chemical Product and Company Identification

MSDS Name: Magnesium Hydroxide
Catalog Numbers: M/0650/50, M/0650/53
Synonyms: Magnesia magma; Magnesium Hydrate, Milk of Magnesia.
Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#: 1309-42-8
Chemical Name: MAGNESIUM HYDROXIDE
%: 95-100
EINECS#: 215-170-3

Hazard Symbols: XI
Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Irritating to eyes, respiratory system and skin.
Potential Health Effects
Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.
Chronic: Repeated exposure may cause kidney damage and digestive tract abnormalities.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water.
Get medical aid immediately.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:
Antidote:
Intravenous calcium chloride (10 to 20 cc of 5% solution, diluted if desirable with isotonic saline) counteracts the toxic actions of magnesium. Also, physostigmine 0.5 to 1.0 mg subcutaneously.

Section 5 - Fire Fighting Measures
General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media:
Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Section 6 - Accidental Release Measures
General Information:
Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Clean up spills immediately, observing precautions in the Protective Equipment section. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

Section 7 - Handling and Storage
Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale.
Storage:
Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection
Engineering Controls:
Local exhaust may be necessary to control concentrations to acceptable levels.

Exposure Limits
CAS# 1309-42-8:

Personal Protective Equipment
Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:  
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: white
Odor: odorless
pH: 9.5-10.5 (slurry)
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 662 deg F (350.00 C)
Autoignition Temperature: Not applicable
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Insoluble in water.
Specific Gravity/Density: 2.36 (water=1)
Molecular Formula: Mg(OH)2
Molecular Weight: 58.3178

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials Not available
Hazardous Decomposition Products Oxides of magnesium.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: 
CAS# 1309-42-8: OM3570000
LD50/LC50: 
RTECS: CAS# 1309-42-8: Oral, mouse: LD50 = 8500 mg/kg; Oral, rat: LD50 = 8500 mg/kg;
Carcinogenicity: MAGNESIUM HYDROXIDE - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for
Section 14 - Transport Information

IATA
Shipping Name: Not Regulated.
Hazard Class: Not Regulated.
UN Number: Not Regulated.
Packing Group: Not Regulated.

IMO
Shipping Name: Not Regulated.
Hazard Class: Not Regulated.
UN Number: Not Regulated.
Packing Group: Not Regulated.

RID/ADR
Shipping Name: Not Regulated.
Hazard Class: Not Regulated.
UN Number: Not Regulated.
Packing Group: Not Regulated.

Severe Marine Pollutant
Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XI
Risk Phrases:
R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)
CAS# 1309-42-8: 1

Canada
CAS# 1309-42-8 is listed on Canada's DSL List

US Federal
TSCA
CAS# 1309-42-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:
3/23/1999
Revision #4 Date
5/22/2007
Revisions were made in Sections:
2, 3

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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