Material Safety Data Sheet

Magnesium chloride hexahydrate
MSDS# 13365

Section 1 - Chemical Product and Company Identification
MSDS Name: Magnesium chloride hexahydrate
Catalog Numbers: 19753-0000, 19753-0010, 19753-0050, 41341-0000, 41341-0030, 41341-1000, 41341-5000, BP/M120/65, BP/M120/71, BPE214-500, M/0550/53, M/0550/60, M/0550/65, M/0550/71, M/0600/53, M/0600/60, M/0600/61, M/0600/65
Synonyms: Magnesium dichloride hexahydrate.
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#: 7791-18-6
Chemical Name: Magnesium chloride hexahydrate
%: 99
EINECS#: unlisted
Hazard Symbols:
Risk Phrases:
Text for R-phrases: see Section 16
Hazard Symbols: XI
Risk Phrases: 36/37

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Irritating to eyes and respiratory system. Hygroscopic (absorbs moisture from the air).
Potential Health Effects
Eye: Causes eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May be harmful if inhaled.
Chronic: May cause kidney damage.

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

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. Wash clothing before reuse.

Ingestion:
Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

Inhalation:
Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

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. Material will not burn.

Extinguishing Media:
Use extinguishing media most appropriate for the surrounding fire.

Section 6 - Accidental Release Measures
General Information:
Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage
Handling:
Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing.

Storage:
Store in a cool, dry place. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection
Engineering Controls:
Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits
CAS# 7786-30-3:
CAS# 7791-18-6:

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 minimize contact with skin.

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 to gray white
Odor: none reported
pH: 7.0 (aq solution)
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 117 deg C (242.60 F)
Autoignition Temperature: Not available.
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Freely Soluble
Specific Gravity/Density: 1.56
Molecular Formula: MgCl2.6H2O
Molecular Weight: 203.31

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures. Deliquescent (tending to absorb atmospheric water vapor and become liquid).
Conditions to Avoid:
Dust generation, moisture.
Incompatibilities with Other Materials
Attacks metals in the presence of moisture.

Hazardous Decomposition Products
Hydrogen chloride, chlorine.

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 7786-30-3: OM2800000
CAS# 7791-18-6: OM2975000
LD50/LC50:
RTECS: CAS# 7786-30-3: Oral, mouse: LD50 = 4700 mg/kg; Oral, rat: LD50 = 2800 mg/kg;
RTECS: CAS# 7791-18-6: Oral, mouse: LD50 = 7600 mg/kg; Oral, rat: LD50 = 8100 mg/kg;

Other:
Carcinogenicity:
Magnesium chloride -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Magnesium chloride hexahydrate -
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

Not available

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
IATA
Shipping Name: Not regulated as a hazardous material
Hazard Class: 
UN Number: 
Packing Group: 

IMO
Shipping Name: Not regulated as a hazardous material
Hazard Class: 
UN Number: 
Packing Group: 

RID/ADR
Shipping Name: Not regulated as a hazardous material
Hazard Class: 
UN Number: 
Packing Group: 

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XI
Risk Phrases: 
R 36/37 Irritating to eyes and respiratory system.

Safety Phrases: 
S 24/25 Avoid contact with skin and eyes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 39 Wear eye/face protection.

WGK (Water Danger/Protection)
CAS# 7786-30-3: 0
CAS# 7791-18-6: 0

Canada
CAS# 7786-30-3 is listed on Canada's DSL List

US Federal
TSCA
CAS# 7786-30-3 is listed on the TSCA Inventory.
CAS# 7791-18-6 is not on the TSCA Inventory because it is a hydrate.
It is considered to be listed if the CAS number for the anhydrous form in on the

Section 16 - Other Information

Text for R-phrases from Section 2
MSDS Creation Date: 9/02/1997
Revision #9 Date 5/24/2007

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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