MAGNESIUM SULFATE

Material Safety Data Sheet

Columbus Chemical Industries, Inc.
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Columbus, WI 53925

Emergency Telephone Number
(414) 623-2160

Effective Date: 11-07-85

PRODUCT IDENTIFICATION: 9266

Synonyms: Magnesium sulfate (1:1) heptahydrate; Epsom salts; sulfuric acid, magnesium salt (1:1), heptahydrate

Formula CAS No.: 10034-99-8 (Hydrated)
TSCA CAS No.: 7487-88-9 (Anhydrous)

Molecular Weight: 246.47
Chemical Formula: MgSO4 \( \cdot 7H_2O \)

Hazardous Ingredients:
Not applicable.

PRECAUTIONARY MEASURES

WARNING! MAY BE HARMFUL IF SWALLOWED.
Wash thoroughly after handling.

EMERGENCY/FIRST AID

If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

SEE SECTION 5.

DOT Hazard Class: Not Regulated

Physical Data

Appearance: Transparent crystals, or white powder.
Odor: Odorless.
Solubility: Very soluble in water.
Boiling Point: Not applicable.
Melting Point: Loses water @ 250°C (482°F), Decomposes @ 1124°C (2055°F)
Specific Gravity: 1.67

SEC 1

Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate: No information found.
Fire and Explosion Information

SECTION 2

Fire:
Not considered to be a fire hazard.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
Use protective clothing and breathing equipment appropriate for the surrounding fire.

Reactivity Data

SECTION 3

Stability:
Stable under ordinary conditions of use and storage. Loses some moisture on exposure to dry air at room temperatures.

Hazardous Decomposition Products:
Oxides of sulfur and the contained metal.

Hazardous Polymerization:
This substance does not polymerize.

Incompatibilities:
No incompatibility data found.

Leak/Spill Disposal Information

SECTION 4

Clean-up personnel may require respiratory protection from dust. Spills: Sweep up and containerize for reclamation or disposal. Avoid dust dispersal. Trace residue may be flushed to sewer with large amounts of water. Disposal: Whatever cannot be saved for reclamation may be disposed in an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.
Health Hazard Information

A. Exposure/Health Effects

Inhalation: Dust may be slightly irritating. Sore throat or coughing may occur.

Ingestion: Abdominal pain, vomiting and diarrhea may occur.

Skin Contact: May cause minor irritation.

Eye Contact: May cause redness and pain.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

B. FIRST AID

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

Ingestion: Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Skin Exposure: Remove any contaminated clothing. Wash skin with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure. Mutation references cited for anhydrous salt. Animal reproductive effects cited for anhydrous salt.
Occupational Control Measures

Airborne Exposure Limits:
None established.

Ventilation System:
In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved)
For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information
Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.