

# Mallinckrodt

## Material Safety Data

Emergency Phone Number: 314-982-5000

### MAGNESIUM METAL

#### PRODUCT IDENTIFICATION:

Synonyms: Magnesium ribbon, magnesium powder, magnesium chipping  
Formula CAS No.: 7439-95-4  
Molecular Weight: 24.30  
Chemical Formula: Mg  
Hazardous Ingredients: Not applicable.

#### PRECAUTIONARY MEASURES

**DAANGER FLAMMABLE!**  
**MAY CAUSE IRRITATION.**  
Avoid contact with eyes, skin and clothing.  
Keep away from heat, sparks and flame.  
Wash thoroughly after handling.

#### EMERGENCY/FIRST AID

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes.  
**SEE SECTION 5.**  
DOT Hazard Class: Flammable Solid

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#### SECTION 1 Physical Data

Appearance: Silver solid.  
Odor: Odorless.  
Solubility: Insoluble in water.  
Boiling Point: 1100°C (2030°F)  
Melting Point: 649°C (1200°F)  
Specific Gravity: 1.74  
Vapor Density (Air=1): No information found.  
Vapor Pressure (mm Hg): No information found.  
Evaporation Rate: No information found.

#### SECTION 2 Fire and Explosion Information

**Fire:**  
When heated in air to a temperature near its melting point, magnesium may ignite and burn.

**Explosion:**  
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Minimum explosive concentration 0.030 grams/liter. Water used on molten magnesium will produce hydrogen gas and may cause an explosion.

**Fire Extinguishing Media:**  
Melting flux, dry sand, or metal extinguishing powders. Do not use water. Use of water on molten magnesium will produce hydrogen gas and may cause an explosion.

**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.

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

#### SECTION 3 Reactivity Data

**Stability:**  
Stable under ordinary conditions of use and storage. Slowly oxidizes in moist air.

**Hazardous Decomposition Products:**  
Toxic gases and vapors may be released if involved in a fire.

**Hazardous Polymerization:**  
This substance does not polymerize.

**Incompatibilities:**  
Magnesium reacts dangerously with many substances, including oxides, carbonates, cyanides, chlorinated hydrocarbons, sulfates, acids, and other metals. Please refer to the NFPA publication "Fire Protection Guide on Hazardous Materials" most recent edition for details. Reacts with acids to form hydrogen gas.

#### SECTION 4 Leak/Spill Disposal Information

**Fire Hazard.** Remove all sources of ignition and incompatible materials. Spills: Sweep up and containize for reclamation, salvage, or disposal in a method that does not generate dust. Disposal: Whatever cannot be saved for reclamation or salvage may be disposed in an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 0 Flammability: 1 Reactivity: 2 Other: Water reactive

Effective Date: 08-09-85

MAGNESIUM METAL

Chemistry

38056  
38058  
38054  
530

## SECTION 5 Health Hazard Information

### A. EXPOSURE/HEALTH EFFECTS

#### Inhalation:

Inhalation of dusts may irritate the respiratory tract and may cause metal fume fever. Symptoms may include coughing, chest pain, fever, and leukocytosis.

#### Ingestion:

May cause abdominal pain and diarrhea.

#### Skin Contact:

Particles embedded in the skin may cause eruptions. Molten magnesium may cause serious skin burns.

#### Eye Contact:

May cause irritation.

#### Chronic Exposure:

No information found.

#### Aggravation of Pre-existing Conditions:

Existing wounds contaminated with magnesium are very slow to heal.

### 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 soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

#### 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.

### SECTION 6 Occupational Control Measures

#### Airborne Exposure Limits:

None established.

#### Ventilation System:

A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

#### 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 impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

#### Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

### SECTION 7 Storage and Special Information

Keep in tightly closed container. Store in a cool, dry, ventilated area. Protect against physical damage. Store finely divided chips or shavings in detached fire-resistant building, protected from moisture and away from chlorine, bromine, iodine, acids, and all possible sources of ignition. Heavier sections may be stored in the open.

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