

#981

Material Safety Data Sheet

Aluminum Company of America, 1501 Alcoa Building, Pittsburgh, PA 15219



NO. 230E

Common Name	Phone	Date
Magnesium Ribbon	Emergency: 412-553-4001 Chemtrec: 800-424-9300 Technical: 412-553-2881	Rev 90-05-17 Orig 82-02-01

Prepared by the Hazardous Materials Control Committee.

SECTION I. Material Description

Chemical Name & Formula: Metallic Magnesium, Mg

Other Designation: Magnesium

CAS No.: Magnesium (7439-95-4)

Manufacturer: Alcoa

SECTION II. Ingredients

Occupational Exposure Limits

	%	TWA in mg/m ³	
		ACGIH TLV	OSHA PEL
Magnesium Metal	99.8	MgO Fume 10	10, 5 (respirable)

SECTION III. Physical Data

Physical Form: Solid metal ribbon, 0.006" thick by 1/8" wide

Boiling Temperature: 2030°F (1110°C)

Freeze-Melt Temperature: 1202°F (650°C)

Vapor Pressure: NA

Evaporation Rate: NA

Specific Gravity: 1.74

Density: 0.063 lb/in³

Water Solubility: Negligible

pH: NA

Color: Silvery/white

Odor: None

SECTION IV. Fire and Explosion Data

Flashpoint: NA	Auto-Ignition Temp.: 950°F (510°C)	Flammability Limits in Air: Upper: Lower: NA
-------------------	---------------------------------------	---

Fine powder, thin sheets, chips, and turnings are easily ignited and burn with intense heat and brilliant white flame. Powders may form explosive mixtures with air. Molten metal may react violently on contact with water.

Smother fires with dry graphite or other suitable dry powders. Do not use foam, halogenated extinguishing agents, or carbon dioxide. Manual application of water should be conducted with care to prevent contact with burning or molten magnesium. Protect eyes and skin against flying particles.

Firefighters should wear NIOSH approved self-contained breathing apparatus and protective clothing when appropriate.

SECTION V. Reactivity Data

Stability: Magnesium is stable under normal conditions. Avoid exposure to moisture, heat, sparks, and flame.

Incompatibility: Magnesium will react with water and acids to release hydrogen; also hazardous with chlorine, bromine, iodine, oxidizing agents, and acids.

Combustion: Supports ignition above 950°F and burns extremely vigorously with white, hot flame.

SECTION VI. Health Hazard Information (See Section II for exposure limits.)

Exposure to magnesium metal or oxide dust should be a low health risk by inhalation and should be treated as a nuisance dust.

Exposure to magnesium oxide fume subsequent to burning, welding, molten metal work, etc. can result in metal fume fever. Temporary symptoms can include fever, chills, nausea, vomiting, and muscular pain. Onset of symptoms occurs 4-12 hours after exposure. Recovery is usually complete in 24-48 hours. Meeting the exposure limits in Section II should prevent metal fume fever from occurring.

SECTION VII. Spill, Leak & Disposal Procedures

Collect scrap in containers for remelting.

RCRA Hazardous Waste No. Not Federally Regulated

SECTION VIII. Special Protection and Precautions

Use with adequate ventilation to meet exposure limits as listed in Section II. Where the exposure limit is or may be exceeded, use NIOSH approved respiratory protection. The selection of the appropriate respirator (dust and fume respirator, etc.) should be based on the actual or potential airborne contaminants and their concentrations present.

Wear appropriate eye protection as necessary to prevent eye irritation. Wear appropriate fire-resistant clothing (e.g., gloves, coveralls) when exposing magnesium ribbon to elevated temperatures (950°F) which can cause ignition.

Precautions to be taken in handling and storage:

Protect containers against physical damage. Wet, moist, or high humidity storage conditions will lead to corrosion of the product. Store away from other combustibles in metal cabinet. Scrap should be kept dry prior to remelting operations.

SECTION IX. Regulatory Information

Chemical substance components have been reported to the EPA Office of Toxic Substances in accordance with the requirements of the Toxic Substances Control Act (Title 40 CFR Part 710). This substance is not listed under SARA Title III Sections 302, CERCLA or 313.

For purposes of SARA III reporting, this substance contains no ingredients listed on the CERCLA, Extremely Hazardous, or 313 Lists. This material fits the EPA Hazard Category definition of a Fire Hazard under SARA Sections 311, 312.

If fumes are generated during processing, this material would fit the EPA Hazard Category of an Immediate Health Hazard under SARA Sections 311, 312. If molten, this material would fit the EPA Hazard Category of Reactive Hazard under SARA Sections 311, 312.

Depending on the particular end use for this product/substance, hazard categories under SARA Sections 311 and 312, other than those listed may apply.

D.O.T. Shipping Name, Hazard Class, I.D. No. (if applicable) Magnesium Metal (Ribbon), Flammable Solid, UN 1869

SECTION X. References

Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made.
