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MATERIAL SAFETY DATA SHEET

Product Name: Magnesium Anodes (CAST and EXTRUDED)

Effective Date: 11/10/03 Product Code: MCHP / MCAZ MEHP /MEAZ Date Printed: 3/01/03

Ingredient:	Range WT %:
Magnesium	99%
Manganese	1%

Physical Properties:

Physical Form: Solid
Boiling Point: 2030°F
Melting Point: 1202°F
Vap Press: NA
Vap Density: NA
Sol. In Water: NA
Odor: None

Sp Gravity: 1.753
Appearance: Silver

Exposure Limits:

	OSHA-PEL (1989)	ACGIH – TLV (1991)	COMMENTS
MgO	10 mg/m3	10 mg/m3	MgO is a combustion Product of the metal
Mn	5 mg/m3	3 mg/m3	

Fire And Explosion

Flash Point: None Method Used: N/A
Flammable Limits: LFL: N/A UFL: N/A
Extinguishing Media: Melting Flux, dry sand, metal extinguishing powders such as G1, Met-L-X, etc.

Fire And Explosion Hazards: When heated in air to a temperature near its melting point, magnesium ignites and burns with a white flame. Water should not be used on a magnesium fire, as it acts as an accelerant. Water on molten magnesium will produce hydrogen gas and may cause an explosion.

Fire Fighting Equipment: Wear Positive Pressure Self-Contained Breathing Apparatus.

Distributed by-
MESA Products, Inc.
PO Box 52608
Tulsa, OK 74152

REACTIVITY:

STABILITY: (Conditions to Avoid) stable under normal conditions (see compatibility statement)

INCOMPATIBILITY: (specific material to avoid) Acid, Water. Reacts with acid to form hydrogen gas. In finely divided form, will react with water and acids to release hydrogen.

HAZARDOUS DECOMPOSITION PRODUCTS: none under normal use or storage. See incompatibility statement and fire and explosion hazard data, for special situations.

HEALTH HAZARD:

EYE: Mechanical injury only.

SKIN CONTACT: Mechanical injury only. Molten material may burn skin.

SKIN ABSORBTION: Skin absorption is unlikely due to physical properties.

INGESTION: Ingestion is unlikely due to physical state. If dusts are produced, amounts ingested incidental to industrial handling are not likely to cause serious injury; however, ingestion of larger amounts could cause serious injury, even death, because the acute toxicity oof magnesium is considered moderate.

INHALATION: Dust may cause irritation to upper respiratory tract.

PRIMARY ROUTE OF ENTRY:

SYMPTOMS AND EFFECTS OF ACUTE OVEREXPOSURE: Based o available data, repeated exposures are not expected to cause any significant adverse effects.

SYMPTOMS AND EFFECTS OF CHRONIC OVEREXPOSURE:

FIRST AID:

EYES: Flush immediately with water for at least 5 minutes.

SKIN: Wash off in flowing water or shower.

INGESTION: Induce vomiting if large amounts are ingested. Consult medical personnel.

INHALATION: Remove to fresh air. If effects occur consult a physician.

MEDICAL CONDITIONS GENERALLY AGGRIVATED BY THIS MATERIAL:

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgement of physician in response to reaction of the patient.

HANDLING PRECAUTIONS:

VENTILATION: good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: No respiratory protection should be needed.

SKIN PROTECTION: No precautions other than clean body covering should be needed.

EYE PROTECTION: Use safety glasses. If there is a potential for exposure to particles, use chemical goggles.

ENVIRONMENTAL AND DISPOSAL INFORMATION

ACTION TO TAKE FOR SPILLS / LEAKS: Clean off and use.

DISPOSAL METHOD: Material can be recycled through secondary scrap reclaimers.

PRECAUTIONS FOR HANDLING AND STORAGE:
Practice reasonable care in handling all forms of magnesium products. Magnesium or magnesium alloy ingots should be preheated to a minimum of 300°F (149°C) to eliminate moisture prior to use in any melting operation. Water, either on the surface or entrapped in surface pores of magnesium ingot will rapidly change to vapor and may cause steam explosion.

SARA:

D.O.T.

Magnesium is not a D.O.T. Hazardous Material when shipped in solid cast, extruded rod, extruded ribbon or ingot (solid) form.