

MATERIAL SAFETY DATA SHEET

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MARTIN MARIETTA MAGNESIA SPECIALTIES 8140 Corporate Drive, Suite 220 BALTIMORE, MD 21236 (410) 780-5500	MSDS CODE: 90-001C MAG DATE: November 20, 2009
	EMERGENCY PHONE: (800)424-9300 CHEMTREC
CHEMICAL DESCRIPTION: Deadburn Magnesium Oxide	
PRODUCT USE: General Industrial Applications	
PRODUCT NAME(S): MagChem M-88, 88 Magnesite; 90/92 Magnesite (all grades and sizings); MagChem P-96, 96 Periclase, 97 Periclase; MagChem P-98 and 98 Periclase (all grades and sizings).	

SECTION II: HAZARDOUS COMPONENTS

HAZARDOUS COMPONENT	CAS NUMBER	APPROX WT %	LD50 or LC50 (species/route)
Magnesium Oxide Fume	01309-48-4	60-100	TCLo 400 mg/m3 (human/ihl)

SECTION III: PHYSICAL DATA

BOILING POINT (F): 3582 C @ 760 mm H	FREEZE POINT (F): Not applicable
pH: ~10 saturated sol	VAP PRESS (mm Hg): ~Zero at 20 C
% VOLATILE (by VOL): Not applicable	SPECIFIC GRAVITY: 3.5 to 3.6
VAPOR DENSITY: Not applicable	EVAPORATION RATE: Not applicable
SOLUBILITY IN WATER: Slightly soluble	ODOR THRESH (ppm): Not determined
PHYSICAL STATE: Solid	OIL/WATER COEFFIC: Not applicable
APPEARANCE AND ODOR: Dry white powder to granular solid; no odor	

SECTION IV: FIRE & EXPLOSION DATA (con't on page 2)

FLASH POINT (METHOD): Product is not flammable or combustible.		
AUTO-IGNITION TEMP: Not applic	LEL: Not applic	UEL: Not applic
SENSITIVE TO MECHANICAL IMPACT? No	SENSITIVE TO STATIC DISCHARGE? No	

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SECTION IV: FIRE & EXPLOSION DATA (con't From page 1)

FLAMMABILITY CLASS: Not Flammable	CONDITIONS OF FLAMMABILITY: Not Flammable
<p>EXTINGUISHING MEDIA: Use media appropriate to primary source of fire. Otherwise, use dry chemical, carbon dioxide, water spray or foam.</p>	
<p>SPECIAL FIREFIGHTING PROCEDURES: No special procedures; avoid breathing fumes or dust; keep upwind.</p>	
<p>UNUSUAL FIRE & EXPLOSION HAZARDS: None known.</p>	
<p>HAZARDOUS COMBUSTION PRODUCTS: None known.</p>	

SECTION V: REACTIVITY DATA

STABLE - YES: XX	NO:
<p>CONDITIONS OF REACTIVITY: Will react with incompatibles (see Section V below)</p>	
<p>CONDITIONS OF CHEMICAL INSTABILITY: Stable under ambient temperatures and pressures.</p>	
<p>INCOMPATIBILITY (MATERIALS TO AVOID): ACID (Strong) - vigorous reaction, heat generated; BROMINE PENTAFLUORIDE - violent reaction; CHLORINE TRIFLUORIDE - may ignite; INTERHALOGENS - may ignite; MAGNESIUM POWDER - may ignite/explode when heated; OXIDIZERS (Strong) - violent reaction; PHOSPHORUS PENTACHLORIDE - incandescs brilliantly on heating;</p>	
<p>HAZARDOUS DECOMPOSITION PRODUCTS: If magnesium oxide is heated to the point of volatilization (ie, >1700 C), magnesium oxide FUMES may be generated.</p>	
IS THIS PRODUCT SUBJECT TO POLYMERIZATION?	NO: XX YES:
CONDITIONS UNDER WHICH PRODUCT WILL POLYMERIZE:	None known.

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SECTION VI: TOXICOLOGICAL/HEALTH HAZARD DATA

ROUTES OF ENTRY - SKIN CONTACT: Yes OF ENTRY INHALATION: Yes	SKIN ABSORPTION: No INGESTION: Yes	EYE CONTACT: Yes
EXPOSURE LIMITS Magnesium Oxide Fume	ACGIH 10 mg/m ³	OSHA 15 mg/m ³ (Total)
EFFECTS OF ACUTE EXPOSURE: Dust may irritate eyes, skin, nasal passages and respiratory tract. Inhalation of freshly generated magnesium oxide fume may result in metal fume fever. Ingestion generally causes purging of the bowels, however, swallowing large amounts may lead to bowel obstruction.		
EFFECTS OF CHRONIC EXPOSURE: No data available on chronic exposure to magnesium oxide.		
SIGNS & SYMPTOMS OF EXPOSURE: INHALED DUST: sneezing, coughing, discolored sputum. INHALED FUME: metal fume fever has influenza-like symptoms including fever, chills, perspiration, cough, nasal irritation, chest pain, nausea, head aches, vomiting and muscular weakness. Symptoms may be delayed 1-3 hours after exposure however no reports of such exposures from industrial contact has been reported. EYE CONTACT: redness, tearing, conjunctivitis. SKIN CONTACT: drying, chapping, dermatitis.		
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: As with exposure to any environment without adequate personal protection: inhalation of magnesium oxide dust or fume may aggravate any pre-existing respiratory disease; prolonged/frequent skin contact may lead to dermatitis		
NAME OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None known.	IRRITANCY OF PRODUCT: No data available.	
REPRODUCTIVE TOXIN? No	TERATOGEN? No	MUTAGEN? No
SENSITIZER? No		
CONSIDERED CARCINOGENIC BY - NTP? No		IARC? No
OSHA? No		

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SECTION VII: PREVENTATIVE MEASURES

GLOVES (SPECIFY):

Dust impervious gloves during manual handling of product.

EYES (SPECIFY):

Safety glasses with sideshields or tight fitting goggles.

FOOTWEAR (SPECIFY):

Steel reinforced shoes when handling pallets of product.

CLOTHING (SPECIFY):

Long sleeves, buttoned collar, long pants extended over shoes or coveralls.

RESPIRATORY PROTECTION (SPECIFY):

UP TO 100 MG/M3: Any dust, mist or fume respirator; any air supplied respirator; or, self-contained breathing apparatus.

UP TO 250 MG/M3: Any supplied air respirator operated in a continuous flow mode or any powered air purifying respirator with a dust/mist/fume filter.

UP TO 500 MG/M3: High efficiency particulate filter with full face piece; any powered air supplied respirator with a tight fitting face piece and a high efficiency particulate filter; any self contained breathing apparatus with a full face piece; any supplied air respirator with a full face piece.

UP TO 7500 MG/M3: Any air supplied respirator with full face piece and operated in a pressure demand or other positive pressure mode.

EMERGENCY or ENTRY INTO UNKNOWN CONCENTRATIONS: Self contained breathing apparatus with full face piece and operated in pressure demand mode or air supplied respirator with full face piece operated in a pressure demand or other positive pressure mode in combination with auxiliary self contained breathing apparatus operated in pressure demand or positive pressure mode.

ESCAPE: Any air purifying full face piece respirator with high efficiency particulate filter or any appropriate escape type self contained apparatus.

SPECIFIC ENGINEERING CONTROLS TO BE USED WITH THIS PRODUCT:

Local and general mechanical dust collection and ventilation in accordance with good engineering practices should be provided to maintain dust levels below permissible exposure levels specified in Section VI (page 3).

PROCEDURES TO FOLLOW IN CASE OF SPILL OR LEAK:

Ventilate enclosed spaces and use appropriate respiratory protection. Sweep or vacuum spilled material in a manner to avoid generation of dust. Reclaim product for re-use, if possible, or collect and seal in DOT approved containers for disposal in an appropriate manner.

DISPOSAL PROCEDURE: Dispose in accordance with local, state and federal regs.

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SECTION VII: PREVENTATIVE MEASURES (con't From page 4)

HANDLING PROCEDURES AND EQUIPMENT:

Keep container closed when not in use. Avoid contact with eyes. Avoid breathing dust or fume and only use in a well ventilated area. Consumption of food and beverages should be avoided in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking or smoking.

STORAGE REQUIREMENTS:

Suitable for any general chemical storage area.

DOT SHIPPING INFO:

Magnesite (calcined)
Non-regulated
No special precautions.

SECTION VIII: FIRST AID PROCEDURES

INHALATION:

Remove to fresh air immediately. Do not permit exposed person to remain in dusty environment without adequate respiratory protection. Treat metal fume fever with bed rest and treat for fever and pain.

EYE CONTACT:

Do not rub eyes. Wash eyes under slowly running water for at least fifteen minutes, making sure eyes are held wide open and moved slowly in every direction. Ensure no solid particles remain in creases of eyelids. If so, continue to wash. If irritation persists, consult an ophthalmologist.

SKIN CONTACT:

Remove from source of irritation. Remove contaminated clothing and wash affected area thoroughly with a mild soap and water. Wash contaminated clothing before reusing.

INGESTION:

Treat symptomatically. If bowel obstruction occurs, immediately consult a physician.

SECTION IX: PREPARATION INFORMATION

PREPARED BY:Linda Aydlett

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DATE PREPARED:01/04/1999

SOURCES USED:

ACGIH 1998; RTECS June '98; Sax - 8th Ed.; Ind. Exposure & Control Techn. For OSHA Regulated Substances - MgO (Fume), March, '89, pp. 1181-1184; NIOSH Occup. Health Guide. For Chem. Sub. - Vol. II, Sept., '78.