

J. M. Huber Corporation

Magnesium Hydroxide

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME J.M. HUBER CORPORATION/Engineered Minerals Division	EMERGENCY TELEPHONE NO. (770) 441-1301 (706) 337-5322
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SECTION I - MATERIAL DESCRIPTION	
CHEMICAL NAME AND FORMULA Magnesium Hydroxide, Mg(OH) ₂	
CHEMICAL FAMILY Alkaline Earth Hydroxide	TRADE NAME/SYNONYMS Zerogen 50, Zerogen 51, Zerogen 52
CAS NUMBER: 1309-42-8 (Magnesium Hydroxide)	

SECTION II - INGREDIENTS AND IDENTIFICATION				
CAS No.	Ingredient	Typical % By Weight	Occupational OSHA PEL	Exposure Limits ACGIH TLV
1309-42-8	Mg(OH) ₂	97+	5	5
1317-65-3	CaCO ₃	1-2	15	10
546-93-0	MgCO ₃	1-2	15	15

SECTION III - PHYSICAL DATA			
BOILING POINT (°F)	NA	VAPOR PRESSURE (mmHg)	NA
VOLATILITY	NA	VAPOR DENSITY (air=1)	NA
EVAPORATION RATE	NA	APPEARANCE AND ODOR	White powder, odorless
SOLUBILITY IN WATER	0.0009 g/100 ml at 18°C	MELTING POINT	NA Decomposes at 350°C
SOLUBILITY (OTHER)	Dilute Acids and Ammonium Salts	SPECIFIC GRAVITY	2.36

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA	EXTINGUISHING MEDIA	NA
FLAMMABLE LIMITS IN AIR	NA	SPECIAL FIRE PROCEDURES	NA
UNUSUAL FIRE AND EXPLOSION HAZARDS	NA		
ADDITIONAL INFORMATION: Evolves water vapor on heating to above 350° C			

SECTION V - REACTIVITY DATA

STABILITY	Stable in air, water and heat (up to 350° C)
INCOMPATIBILITY	Acids, strong oxidizing agents
HAZARDOUS DECOMPOSITIONS OR BYPRODUCTS	Magnesium Oxide
HAZARDOUS POLYMERIZATION	Will not occur
CORROSIVITY	Not corrosive

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY:							
INHALATION	YES	SKIN	NO	INGESTION	YES	EYES	YES
HEALTH HAZARDS:							
Acute				(Short Term) Over Exposure			
Skin Absorption				None reported			
Eye Contact				May cause abrasion and irritation			
Inhalation				Airborne nuisance dust may cause coughing, shortness of breath, wheezing or general irritation of breathing passages			
Skin Contact				May cause dryness and irritation			
Ingestion				May cause abdominal pain and/or diarrhea. Acts as a laxative.			
Chronic				(Long-Term) Over Exposure			
Airborne nuisance dust may cause chronic effects in eye contact irritation, including permanent abrasion damage to cornea. Breathing airborne nuisance dust can cause chronic breathing difficulty.							
Carcinogenicity							
None reported for eye contact, skin absorption on contact, ingestion or inhalation							

SECTION VI - HEALTH HAZARD DATA (Continued)

SIGNS AND SYMPTOMS OF EXPOSURE:

Acute	(Short Term) Over Exposure
Skin Absorption	None Reported
Eye Contact	Tearing, redness
Inhalation	May cause coughing, mucus production, shortness of breath, wheezing and/or irritation of breathing passages
Skin Contact	Irritation, rash
Ingestion	Single dose oral toxicity is low
Chronic	(Long Term) Over Exposure
Airborne nuisance dust can cause aggravated symptoms described above, and could lead to chest pains and/or choking if uninterrupted and untreated.	
Emergency First Aid Procedures:	
Inhalation	Remove from exposure area to fresh air immediately
Eye Contact	Flush eyes with clean water for at least 15 minutes until no evidence of material remains
Skin Contact	Rinse exposed areas with fresh water, then wash thoroughly with mild soap and warm H ₂ O. Avoid vigorous scrubbing which could aggravate abrasion irritation.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled

Small Spills	Use scoop or shovel to transfer material into a sealable container
Large Spills	Notify environmental personnel. Prevent runoff to watershed. Control area of spill and collect material in sealable container or covered transport vehicles for removal to use site or disposal facility.
Disposal	Re-use material whenever possible. Waste material must be disposed of in accordance with local, state and federal agencies, at approved secure landfill.

SECTION VIII - CONTROL MEASURES

Respiratory Protection	Use NIOSH/MSHA dust mask
Ventilation	Provide sufficient ventilation to maintain dust concentration below ACGIH TLV
Skin Protection	Wear gloves to prevent skin abrasions
Eye Protection	Wear eye protection whenever airborne nuisance dust is generated. Goggles are recommended.

SECTION IX - SPECIAL PRECAUTIONS & COMMENTS

Chemical substance components have been reported to the EPA Office of Toxic Substances in accordance with the requirements of the Toxic Substance Control Act (Title 40 CFR Part 710).

All statements, technical information and recommendations contained herein are based on tests and data which this company believes to be currently reliable, but accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.

SECTION X - ADDITIONAL INFORMATION**HMS Ratings:**

Health	0	Reactivity	1
Flammability	0	Personal Protection	Dust Respirator

FOR MORE INFORMATION CONTACT
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