



SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: Elastomag 170 S

Other means of identification:

Product Description:

Magnesium Oxide Formula: MgO

Synonyms:

Magnesium oxide; calcined brucite magnesia, calcined magnesia, calcined magnesite, magnesite burnt deadburned refractory, periclase, sea-water magnesia, oxomagnesia.

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: For use in industrial applications such as rubber, plastics, steel coating and other specialty applications.

Chemical distributor, or other responsible party Name, address, and telephone number:

Distributor Name: Western Reserve Chemical Corporation

Address: 4837 Darrow Road
Stow, OH 44224
USA

General Phone Number: 330 650 2244

General Fax Number: 330 650 2255

Emergency phone number::

Emergency Phone Number: Chemtrec 1 800 424 9300 USA

Website: www.wrchem.com

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Class: Classification (GHS-US) : Not classified

Hazards not otherwise classified that have been identified during the classification process:

Emergency Overview: Product contains mechanical irritants to skin, eyes and respiratory tract and may present a nuisance dust hazard. Avoid breathing dust. Avoid contact with skin. Wear protective clothing including gloves, goggles or safety glasses with side shields and NIOSH approved dust mask. Magnesium oxide FUME may be generated in a reducing environment when temperatures exceed 1700°C (3092°F).

Route of Exposure: Likely routes of exposure : dermal;Inhalation.

Acute Health Effects: 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.

Eye: May cause eye irritation.

Skin: Effects of skin contact may include: skin irritation.

Inhalation: INHALED DUST: sneezing, coughing, shortness of breath,discolored sputum
INHALED FUME: metal fume fever has influenza-like symptoms including fever,

Ingestion: Ingestion generally causes purging of the bowels. Swallowing large amounts may cause bowel obstruction.

Chronic Health Effects: No data available

Carcinogenicity: Not classified. (Based on available data, the classification criteria are not met)

Aggravation of Pre-Existing Conditions: 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.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Magnesium oxide	1309-48-4	98 %	

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Skin Contact:	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Inhalation:	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

Most important symptoms/effects, acute and delayed:

Other First Aid:	First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Most important symptoms and effects, both acute and delayed	Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use. Do not breathe dust. Symptoms/injuries after inhalation : Inhalation may cause: irritation, cough, shortness of breath. Symptoms/injuries after skin contact : Effects of skin contact may include: skin irritation. Symptoms/injuries after eye contact : May cause eye irritation. Symptoms/injuries after ingestion : Ingestion generally causes purging of the bowels. Swallowing large amounts may cause bowel obstruction.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media:	Not combustible. If there is a fire close by, use suitable extinguishing agents. Water fog. Carbon dioxide. Dry powder. Foam.
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Special protective equipment and precautions for fire-fighters:

Protective Equipment:	Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Fire Fighting Instructions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses. Other information : No additional risk management measures required.
Special hazards arising from the substance or mixture	Fire hazard : If heated to decomposition (>1700 °C), magnesium oxide fumes may be generated. Explosion hazard : Product is not explosive. Reactivity : Reacts with: Incompatible materials.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions:	Personal precautions, protective equipment and emergency procedures General measures : Avoid creating or spreading dust. Dust deposited may be vacuum cleaned. For non-emergency personnel Protective equipment : Where excessive dust may result, use approved respiratory protection equipment. Emergency procedures : Evacuate unnecessary personnel. For emergency responders Protective equipment : Where excessive dust may result, use approved respiratory protection equipment. Emergency procedures : Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.
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Environmental precautions:

Environmental Precautions:	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
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Methods and materials for containment and cleaning up:

Methods for containment:	Do not allow minor leaks or spills to accumulate on walking surfaces. Contain and collect as any solid.
Methods for cleanup:	On land, sweep or shovel into suitable containers. Minimize generation of dust.
Reference to other sections	See Heading 8. Exposure controls and personal protection.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling:	Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.;Provide good ventilation in process area to prevent formation of dust.
Hygiene Practices:	Smoking, eating and drinking should be prohibited in areas of storage and use. Always wash your hands immediately after handling this product, and once again before leaving the workplace.
<u>Conditions for safe storage, including any incompatibilities:</u>	
Storage:	Storage conditions : Keep only in the original container in a cool, well ventilated place away from incompatible materials. Keep container closed when not in use. Incompatible materials : ACID (Strong) - vigorous reaction, heat generated; Chlorine Trifluoride reacts violently, producing flame; Phosphorous Pentachloride - incandescens brilliantly. NOTE: Exposure to water may cause this product to slowly hydrate, during which heat may be generated (exothermic reaction).
Specific end use(s)	Reference Section 1.2

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Guideline ACGIH:	ACGIH - Time Weighted Averages Magnesium oxide fume 10 mg/m ³ TWA ACGIH - TLV Basis: Critical Effects Magnesium oxide fume irritation; metal fume fever
Guideline OSHA:	Final PELs: Time Weighted Average Magnesium oxide fume total particulate: 15 mg/m ³ TWA Vacated PELs: Time Weighted Avg Magnesium oxide fume total particulate: 10 mg/m ³ TWA

Appropriate engineering controls:

Engineering Controls:	Appropriate engineering controls : Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Provide local exhaust ventilation of closed transfer systems to minimize exposures.
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Individual protection measures:

Eye/Face Protection:	Chemical goggles or safety glasses.
Hand Protection Description:	Wear protective gloves: dust impervious gloves.
Respiratory Protection:	In case of insufficient ventilation, wear suitable respiratory equipment.;Use air-purifying respirator equipped with particulate filtering cartridges. UP TO 100 MG/M ³ : Any dust, mist or fume respirator; any air supplied respirator; or, self-contained breathing apparatus. UP TO 250 MG/M ³ : 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/M ³ : 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/M ³ : 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.

PPE Pictograms:



Other information	When using, do not eat, drink or smoke.
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SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Solid
Color:	white.
Odor:	Odorless
Odor Threshold:	No data available
Boiling Point:	3600 °C
Melting Point:	2827 (2797 - 2857) °C
Density:	3.58 g/cm ³ Relative density : No data available
Solubility:	In water, material is partially soluble.
Vapor Density:	Relative vapor density at 20 °C : 0
Vapor Pressure:	No data available Vapor pressure at 50 °C : 0 hPa
Evaporation Rate:	Relative evaporation rate (butyl acetate=1) : No data available
pH:	No data available pH solution : 10.3 saturated aqueous solution
Molecular Weight:	40.3 g/mol
Viscosity:	

Flash Point:	Product does not sustain combustion
Auto Ignition Temperature:	No data available
Explosive Properties:	Product is not explosive.
Oxidizing Properties:	No data available
<u>9.2. Other information:</u>	
APPEARANCE	Powder

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity: Reacts with: Incompatible materials.

Chemical Stability:

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Possibility of hazardous reactions:

Hazardous Polymerization: Possibility of hazardous reactions : Hazardous polymerization will not occur.

Conditions To Avoid:

Conditions to Avoid: Avoid contact with incompatible materials, excessive heat or cold; moisture.

Incompatible Materials:

Incompatible Materials: ACID (Strong) - vigorous reaction, heat generated; Chlorine Trifluoride reacts violently, producing flame; Phosphorous Pentachloride - incandesces brilliantly. NOTE: Exposure to water may cause this product to slowly hydrate, during which heat may be generated (exothermic reaction).

Hazardous Decomposition Products:

Special Decomposition Products: If magnesium oxide is heated to the point of volatilization (i.e., >1700 °C), magnesium oxide fumes may be generated.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity: Not classified. (Based on available data, the classification criteria are not met)

Magnesium oxide:

IARC: Not listed in carcinogenicity class

NTP: Not listed in carcinogenicity class

Magnesium oxide:

Ingestion: LD50 oral rat 3990 mg/kg
ATE (oral) 3990.000 mg/kg body weight

Sensitization: Respiratory or skin sensitization : Not classified. (Based on available data, the classification criteria are not met)

Mutagenicity: Germ cell mutagenicity : Not classified. (Based on available data, the classification criteria are not met)

Reproductive Toxicity: Not classified. (Based on available data, the classification criteria are not met)

SECTION 12 : ECOLOGICAL INFORMATION

Magnesium oxide:

Persistence and degradability:

Biodegradation: Persistence and degradability: Not established.

Bioaccumulative potential:

Bioaccumulation: Bioaccumulative potential :Not established.

Ecotoxicity:

Ecotoxicity: No additional information available

Mobility in soil:

Mobility In Environmental Media: Mobility in soil : No additional information available

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: Waste treatment methods : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Dispose in a safe manner in accordance with local/national regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national

regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Non regulated.

DOT Pictograms:



IATA Shipping Name: No information.

IMDG Shipping Name : No information.

ADR Shipping Name : No information.

RID Shipping Name : No information.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status: 8(b)Inventory List: 1309-48-4

CERCLA Section 302: Not a hazardous substance.

Section 311/312 Hazard Categories: Magnesium oxide - Acute hazard (nusiance dust)

Section 313: This notification must not be detached from this SDS and any copying of the SDS must include this notice, as required by 40CFR part 372: Magnesium oxide is not subject to Form R reporting requirements.

State Regulations: U.S. – Illinois Right-to-Know Toxic Substances List
U.S. – Massachusetts Right-to-Know
U.S. – Minnesota Right-to-Know
U.S. – New Jersey Right-to-Know
U.S. – Pennsylvania Right-to-Know
U.S. – Rhode Island Right-to-Know

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 0
HMIS Fire Hazard: 0
HMIS Reactivity: 1
HMIS Personal Protection: J

Health Hazard	0
Fire Hazard	0
Reactivity	1
Personal Protection	J

SDS Revision Date: September 24, 2015

Notes : Important Note: This information relates to the specific product described herein and may not be valid for this material when used in combination with other raw materials. The information provided is without warranty regarding its accuracy or completeness. The information may not be valid under all conditions. The user has the final responsibility for determining the suitability of the product in a given application.

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