



## Material Safety Data Sheet

### Magnesium oxide

MSDS# 13450

#### Section 1 - Chemical Product and Company Identification

MSDS Name: Magnesium oxide

Catalog Numbers: AC193430000, AC193430100, AC205150000, AC205150025, AC205155000, AC222530000, AC222530000, AC222531000, AC222532500, AC222535000, AC263830000, AC263830025, AC263830025, AC263830100, AC263835000, AC423890000, AC423890500, AC423895000, AC423895000, M300-500, M3494-500, M51-100, M51-500, M68-3, M68-500

Synonyms: Magnesia.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

#### Section 2 - Composition, Information on Ingredients

CAS#: 1309-48-4

Chemical Name: Magnesium oxide

%: >95

EINECS#: 215-171-9

Hazard Symbols: None listed

Risk Phrases: None listed

#### Section 3 - Hazards Identification

##### EMERGENCY OVERVIEW

Caution! May cause respiratory tract irritation. May cause eye irritation. Hygroscopic (absorbs moisture from the air). Inhalation of fumes may cause metal-fume fever. Target Organs: Respiratory system, eyes.

##### Potential Health Effects

Eye: May cause eye irritation.

Skin: Dust may cause mechanical irritation.

Ingestion: No hazard expected in normal industrial use.

Inhalation: Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. Inhalation of dust may cause irritation of the nose and throat.

Chronic: No information found.

#### Section 4 - First Aid Measures

Eyes: Gently lift eyelids and flush continuously with water. If irritation develops, get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to

Physician:

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Magnesium oxide, as a fume, is produced when magnesium is burned in high-temperature processes or exposed to fire conditions.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Autoignition Temperature:** Not available.

**Flash Point:** Not available

**Explosion Limits:** Not available

**Lower:**

**Explosion Limits:** Not available

**Upper:**

**NFPA Rating:** health: 1; flammability: 0; instability: 0;

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Avoid breathing dust and fume.

**Storage:** Store in a cool, dry place. Keep away from strong acids. Store protected from moisture.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Magnesium oxide	10 mg/m3 (inhalable fraction)	750 mg/m3 IDLH (fume)	15 mg/m3 TWA (fume, total particulate)

OSHA Vacated PELs: Magnesium oxide: 10 mg/m3 TWA (total particulate)

**Engineering Controls:**

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits**

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Glove protection is not normally required.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Color:** white

**Odor:** odorless

**pH:** 10.3 (saturated aq soln)

**Vapor Pressure:** 0 mm Hg @ 25 deg C

**Vapor Density:** Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 3600 deg C ( 6,512.00°F)

Freezing/Melting Point: 2800 deg C ( 5,072.00°F)

Decomposition Temperature: Not available

Solubility in water: Very slightly .0086g/100ml

Specific Gravity/Density: 3.58

Molecular Formula: MgO

Molecular Weight: 40.30

#### Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.  
Absorbs carbon dioxide from the air. Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Dust generation, moist air, prolonged exposure to air.

Incompatibilities with Other Materials: Strong acids, interhalogens.

Hazardous Decomposition Products: None.

Hazardous Polymerization: Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 1309-48-4: OM3850000

LD50/LC50: RTECS: Not available.

Carcinogenicity: Magnesium oxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: Not regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

#### Section 15 - Regulatory Information

##### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 1309-48-4: 1

Canada

CAS# 1309-48-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not controlled.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1309-48-4 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 1309-48-4 is listed on the TSCA  
Inventory.

#### Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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