

Safety Data Sheet

Magnesium Oxide

Date of issue: 05/29/2019

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Section 1 Product Identification and Company Information

PRODUCT NAME: Baymag Magnesium Oxide
CHEMICAL NAME: Magnesium Oxide
CHEMICAL FORMULA: MgO
SYNONYMS: Magnesia, Calcined Magnesia, Calcined Magnesite, Fused Magnesia
PRODUCT USE: Industrial Chemical Process/Animal Feed Supplement/Refractory Material

MANUFACTURER:

Baymag Inc.
800, 10655 Southport Rd. S.W.
Calgary, Alberta, Canada T2W 4Y1

Phone: (403) 271-9400
Emergency: (403) 673-3790
Fax: (403) 271-0010

Section 2 Hazards Identification

HAZARDS CLASSIFICATION: Not Classified

LABEL ELEMENTS:
Hazard Symbol: No symbol
Signal Word: No signal word
Hazard Statement: Not applicable

OTHER HAZARDS: No additional information available

Section 3 Composition/Information on Ingredients

Components	% (wt./wt.)	CAS#
Magnesium Oxide	94 – 98	1309-48-4
Oxides of calcium, iron, aluminum, and silicon	2 – 6	mixture

Section 4 First Aid Measures

INHALATION: If symptoms of exposure are experienced (see Hazards Identification), remove victim to fresh air. Obtain medical attention.

INGESTION: Rinse mouth with and/or drink water if conscious. Obtain medical attention.

EYES: If irritation occurs, immediately flush eyes with water for at least 10 minutes. Obtain medical attention.

SKIN: Not expected to cause a problem. However, if irritation occurs, flush affected area with water. If irritation Persists, obtain medical attention.

Section 5 Fire Fighting Measures

CONDITIONS OF FLAMMABILITY: Not Flammable
EXTINGUISHING AGENTS: As for surrounding fire*
FLASHPOINT AND METHOD: Not applicable
UPPER FLAMMABLE LIMIT: Not applicable
LOWER FLAMMABLE LIMIT: Not applicable
AUTOIGNITION TEMPERATURE: Not applicable
HAZARDOUS COMBUSTION PRODUCTS: Not applicable
SENSITIVITY TO MECHANICAL IMPACT: No special sensitivity
SENSITIVITY TO STATIC DISCHARGE: Not sensitive
FIREFIGHTING PROCEDURES: As for surrounding fire*

* Water reacts exothermically with magnesium oxide to produce magnesium hydroxide and heat/steam. Avoid water contact in closed or restricted storage vessels as heat, swelling, and rupture of storage vessel may occur.

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Section 6

Accidental Release Measures

LEAK AND SPILL PROCEDURES:

Pick-up spills without creating dust. Place material into a dry container and cover. Hold in sealed container for disposal. Use personal protective equipment as required (See Section 8 - Exposure Controls and Personal Protection).

Section 7

Handling and Storage

HANDLING PROCEDURES AND EQUIPMENT:

Avoid inhalation of dust. Clean area frequently to avoid dust build-up. Wear applicable personal protective equipment as indicated in Section 8 – Exposure Controls and Personal Protection.

STORAGE REQUIREMENTS:

Store in a dry area in sealed containers. Keep away from incompatible materials such as interhalogens and strong acids. Avoid contact with water - product reacts exothermically with water to form magnesium hydroxide and heat/steam. Water contact in closed or restricted storage vessels may cause heat, swelling, and possible rupture of storage vessel.

Section 8

Exposure Controls/Personal Protection

Exposure Limits		
OSHA- PEL	ACGIH-TLV	Alberta-TWA
15 mg/m ³ (Nuisance Particulate)	10 mg/m ³ (Nuisance Particulate)	10 mg/m ³ (Nuisance Particulate)
5 mg/m ³	2 mg/m ³	2 mg/m ³
15 mg/m ³ (Total Particulate)	10 mg/m ³ (Total Particulate)	10 mg/m ³ (Total Particulate)

ENGINEERING CONTROLS:

Engineering controls may include process enclosure and/or local exhaust ventilation to maintain dust concentrations below allowable exposure limits. Local exhaust ventilation with or without process enclosure is important where large quantities are handled, as in bagging operations.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: If adequate engineering controls are not available, wear respirator approved by NIOSH/MSHA for dusts/mists, as applicable. If magnesium oxide fume is likely to be produced then ensure that a NIOSH/MSHA respirator approved for fumes is used. In conditions of oxygen deficiency, or where airborne concentrations exceed 100mg/m³, wear positive pressure or pressure demand supplied air respiratory protection or SCBA.

EYE/SKIN PROTECTION: Wear safety goggles in high dust concentrations, unless full face-piece respiratory protection is worn. Wear coveralls.

Section 9

Physical and Chemical Properties

APPEARANCE:	White to light brown powder/granules	MELTING POINT:	Approx. 2800°C
ODOUR :	Odourless	SPECIFIC GRAVITY:	3.58 g/cc
PHYSICAL STATE:	Solid	EVAPOURATION RATE:	Not applicable
pH:	10.3 (Sat. aq. sol'n)	PARTITION COEFF.:	Not applicable
VAPOUR PRESSURE:	Not applicable	ODOUR THRESHOLD:	Not applicable
VAPOUR DENSITY:	Not applicable	VISCOSITY:	Not applicable
BOILING POINT:	Approx. 3600°C	WATER SOLUBILITY (@20°C):	0.0006 g/100ml

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Section 10

Stability and Reactivity

CHEMICAL STABILITY:

Stable under normal conditions.

CONDITIONS TO AVOID:

Avoid contact with water - product reacts exothermically with water to form magnesium hydroxide and heat/steam.

INCOMPATIBLE SUBSTANCES:

Strong Acids, Interhalogens (eg. Bromine pentafluoride, chlorine tri-fluoride), phosphorous pentachloride.

HAZARDOUS DECOMPOSITION PRODUCTS:

Magnesium fume may be generated if heated to volatilization. Heat and Steam may be generated upon contact with water.

HAZARDOUS POLYMERIZATION:

Does not occur.

Section 11

Toxicological Information

LD50/LC50:

No Data Available

IRRITANCY:

May cause irritancy of eyes, skin or nasal passages

SENSITIZER:

No Data Available

CARCINOGEN:

Magnesium oxide (CAS#1309-48-4) is not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP or OSHA

TERATOGEN:

No Data Available

REPRODUCTIVE TOXIN:

No Data Available

MUTAGEN:

No Data Available

SYNERGISTIC PRODUCTS:

None Known

Section 12

Ecological Information

No Data Available

Section 13

Disposal Considerations

WASTE DISPOSAL: This product does not meet the criteria of a hazardous waste. Dispose in accordance with all applicable Federal, Provincial/State, and local Environment Regulations.

Section 14

Transport Information

SPECIAL SHIPPING INFORMATION:

No special requirements

CANADIAN TGD:

Not regulated. No PIN number assigned.

U.S. DOT:

Not regulated by DOT. No UN number assigned.

MARITIME TRANSPORT:

IMDG: Not Regulated
Marine Pollutant: Not Listed

AIR TRANSPORT:

IATA: Not Regulated

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Section 15

Regulatory Information

INVENTORY/REGULATORY LISTS:

Magnesium Oxide is reported on the following national inventory and/or regulatory lists:

Australia	-	Australian Inventory Of Chemical Substances (AICS):	1309-48-4
Canada	-	Domestic Substance List (DSL):	1309-48-4
Europe	-	European Inventory Of Existing Commercial Chemical Substances (EINECS):	215-171-9
Japan	-	Existing And New Chemical Substances (ENCS):	1-465
Korea	-	Existing And Evaluated Chemical Substances (KECL):	KE-22728
Philippines	-	Inventory of Chemicals and Chemical Substances (PICCS):	Magnesium Oxide
USA	-	Toxic Substance Control Act (TSCA) Inventory List 8(b):	1309-48-4

WHMIS 2015 CLASSIFICATION: Not a dangerous product according to HPR classification criteria

CEPA: This product is not listed as a toxic substance under the Canadian Environmental Protection Act (CEPA 1999).

CERCLA: Not listed as a hazardous substance

SARA TITLE III:

Section 302: Product is not listed as an Extremely Hazardous Substance (EHS).
Section 304: Emergency Release Notification not required.
Section 311/312: Hazard Category: Acute (nuisance dust).
MSDS, chemical inventory, Tier I/II reporting are applicable.
Section 313: Product is not subject to Form R reporting.

Section 16

Other Information

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