

**Magnesium Oxide**

### 1. Identification of the substance/mixture and supplier

<b>Product Name:</b>	<b>Magnesium Oxide</b>
<b>Other names</b>	<b>Calcined Magnesite, Causmag XLM, Preemox 325, Magnesia, Calcined Magnesia</b>
<b>Recommended Uses</b>	<b>Refractories, especially for steel furnace linings, polycrystalline ceramic for aircraft windshields, electrical insulation, pharmaceuticals and cosmetics, inorganic rubber accelerator, oxychloride and oxy sulphate cements, paper manufacture, fertilisers, removal of sulphur dioxide from stack gases, adsorption and catalysis, semiconductors, pharmaceuticals, food and feed additive.</b>
<b>Supplier Street address</b>	<b>Dickie Direct Limited 25 Railway Road, Whakatu Hastings 4172</b>
<b>Telephone Number Website</b>	<b>0800 4 DICKIE (4 34254) <a href="http://www.dickiedirect.co.nz">www.dickiedirect.co.nz</a></b>
<b>Emergency Telephone</b>	<b>0800 CHEMCALL (24 hours) 0800 243 622</b>

### 2. Hazards Identification

Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land. Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001

**GHS Classifications:** Eye Irritation Category 2  
Specific target organ toxicity – single exposure Category 3  
(Narcotic Effects)

### 3. Composition/Information on Ingredients

Contents	CAS Number	Proportion
Magnesium Oxide	1309-48-4	>60%

## 4. First Aid Measures

<b>Swallowed</b>	Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention immediately.
<b>Eye Contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.
<b>Skin Contact</b>	Remove contaminated clothing. Wash affected area with plenty of soap and water for at least 15 minutes. If irritation occurs, seek medical attention.
<b>Inhaled</b>	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient. No specific antidote.
<b>Aggravated medical conditions caused by exposure.</b>	No information available on medical conditions which are aggravated from exposure to this product

## 5. Fire-fighting Measures

<b>Extinguishing Media</b>	In case of fire use appropriate extinguishing media most suitable for surrounding fire conditions.
<b>Hazards from Combustion Products</b>	Non-combustible solid.
<b>Special Protective Precautions and Equipment for Fire Fighter</b>	Decomposes on heating emitting toxic fumes. Fire Fighters to wear self contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves if risk of exposure to products of decomposition.
<b>Flammability Conditions</b>	Non combustible, however if material is involved in a fire use fine water spray, normal foam, dry agent (carbon Dioxide, dry chemical powder)

## 6. Accidental Release Measures

<b>Emergency Procedures</b>	If contamination of sewers or waterways has occurred advise local emergency services.
<b>Materials for Containment and Clean Up:</b>	Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

## 7. Handling and Storage

<b>Handling advice</b>	Avoid skin and eye contact and breathing in dust.
<b>Storage advice</b>	Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use – check regularly for spills.
<b>Container type:</b>	Store in original packaging as approved by Manufacturer.

## 8. Exposure Controls/Personal Protection

### Workplace Exposure Guidelines

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH).

However, Workplace Exposure Standard(s) for constituent(s):

Magnesium oxide fume: 8hr WES-TWA = 10mg/m<sup>3</sup>

Nuisance dust: WES-TWA 10mg/m<sup>3</sup>

As published by the New Zealand Occupational Safety and Health Service (OSH).

WES-TWA (Workplace Exposure Standard – Time Weighted Average) – The eight hour, time weighted average exposure standard is designed to protect the worker from the effects of long-term exposure. These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

### Personal Protective Equipment

Wear overalls, chemical goggles and PVC or rubber gloves. Avoid generating and inhaling dusts. If dust exists, wear dust mask / respirator meeting the requirements of AS/ NZS 1715 and AS/ NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. Physical and Chemical properties

<b>Appearance</b>	White Fine Powder, Granules or Pellets
<b>Formula</b>	MgO
<b>Odour</b>	Odourless
<b>Solubility</b>	Slightly soluble in water
<b>Specific Gravity</b>	3.58 @ 20°C
<b>Flash Point (°C)</b>	Not applicable
<b>pH</b>	10.3 (Saturated Solution)
<b>Melting Point</b>	<b>2500-2800°C</b>
<b>Vapour Pressure</b>	Not applicable

## 10. Stability and Reactivity

<b>Stability</b>	Stable under ambient conditions.
<b>Conditions to Avoid:</b>	Sensitive to moisture and air. Absorbs carbon dioxide from air.
<b>Incompatible Materials:</b>	Incompatible with strong acids, interhalogens (eg, Bromine pentafluoride, chlorine trifluoride and sources of ignition). Sensitive to moisture and air. Absorbs carbondioxide from air.
<b>Hazardous Decomposition Products:</b>	Decomposes on heating emitting toxic fumes of magnesium oxide. However, the temperature required to generate toxic fumes would be above 1200°C.
<b>Hazardous Reactions:</b>	Hazardous polymerization will not occur. Violent reaction or ignition can occur when in contact with interhalogens (eg, bromine pentafluoride, chlorine trifluoride) and acids. Reacts incandescently with phosphorus pentachloride (PC15). Reacts exothermically with water to form magnesium hydroxide.

## 11. Toxicological information

No adverse held effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Swallowed</b>	No adverse effects expected, hover large amounts may cause diarrhoea, nausea and vomiting.
<b>Eye Contact</b>	An eye irritant. Exposure to dust may cause discomfort due to particle nature.
<b>Skin Contact</b>	Repeated or prolonged skin contact may lead to irritation. Contact with skin may result in irritation.
<b>Inhaled</b>	Material may be irritant to the mucous membranes of the respiratory tract (airways).
<b>Long Term Effects</b>	No information available for the product.
<b>Toxicological Data</b>	No LD50 data available for product.

## 12. Ecotoxicological information

Ecotoxicity: Avoid contaminating waterways.

### 13. Disposal

Refer to Waste Management Authority. Normally suitable for disposal at approved land waste site.

### 14. Transport information

#### Road and Rail Transport

Not Classified as a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.

#### Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

#### Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

### 15. Regulatory Information

ERMA (NZ) Approval Code: HSR002503

**Classification: Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.**

#### **GHS Classifications**

Eye Irritation Category 2  
Specific target organ toxicity – single exposure  
Category 3 (Narcotic Effects)

### 16. Other information

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES.

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty s expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.