

VETPAK SAFETY DATA SHEET

Section 1: Identification of the Substance or Mixture and of the Supplier

Product Name: Magnesium Oxide Ultrafine

Other names: Calcined Caustic Magnesia, Magnesium Oxide.

Recommended Use: Tailing treatment, sewerage treatment, stock feed, and fertiliser.

Company Details: Vetpak Ltd.

Address: 249 Bruce Berquist Drive Te Awamutu.

Telephone Number: (07) 870 2024

Emergency Telephone Number: (07) 870 2024 8.00am to 5.00pm Monday to Friday except public holidays. National Poisons Centre, Department of Preventative and Social Medicine, University of Otago, P O Box 913, Dunedin, New Zealand. Phone (0800) 764-766 24 hours.

Date of Preparation: 5th September 2019

Section 2: Hazards Identification

STATEMENT OF HAZARDOUS NATURE

This product is generally recognized as safe (non-hazardous) IN THIS FORM AND AT THIS STRENGTH. Handle correctly and as directed by this SDS.

This is the products **end** use.

HAZARD LABELLING WARNING

N/A

HAZARD CLASSIFICATION AND STATEMENTS

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
N/A				
N/A				

Section 3: Composition / Information on Ingredients:

COMPOSITION

Ingredient	CAS Number	% w/w	HAZARDOUS
Magnesium oxide	1309-48-4	>95%	No
Calcium oxide	1305-78-8	<5%	Yes 8.2C; 8.3A; 9.1D
Silicon dioxide	7631-86-9	<5%	No
Iron oxide	1309-37-1	<1%	No
Aluminium oxide	1344-28-1	<1%	No
Manganese dioxide	1313-13-9	<1%	Yes 6.1D; 6.4A; 6.8C; 6.9A; 9.3C

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Section 4: First Aid Measures:

Swallowed: Rinse mouth out with plenty of water. If irritation or discomfort persists, seek medical attention.

Skin: If product comes in contact with the skin, wash affected area with soap and water. Seek medical attention in the event of irritation.

Eye: Hold the eyes open and wash continuously for at least 15 minutes with fresh running water. Ensure irrigation under eyelids by occasionally lifting the upper and lower lids. Transport to doctor or hospital without delay. Removal of any contact lens after an eye injury should only be undertaken by skilled personnel.

Inhaled: If dust is inhaled, remove to fresh air. Encourage patient to blow nose to ensure clear breathing passages. Rinse mouth with water. Consider drinking water to remove dust from throat. If irritation or discomfort persists, seek medical attention.

Workplace Facilities: Eye bath and normal washroom facilities.

Notes for Medical Personnel: Nil. The general effect of a large ingestion of magnesia is a purging of the body.

Section 5: Fire Fighting Measures

Type of Hazard: Not flammable.

Fire Hazard Properties: Smoke, fumes and dust may be generated in a large fire.

Extinguishing Media & Methods: Use media appropriate to the surrounding fire.

Recommended Protective Clothing: Use protective clothing appropriate to the surrounding fire.

Section 6: Accidental Release Methods

Minor spills: Clean up all spills immediately. Wear impervious gloves and safety glasses. Avoid generating and breathing dust. Vacuum up or sweep up and place in a suitable container for disposal.

Major spills: Clear area of personnel and move up wind. Use dry clean up procedures. Avoid generating dust. If inhalation risk of exposure exists, wear SAA approved dust respirators. Collect recoverable product into labelled containers for recycling. Do not let product reach drains or waterways.

Section 7: Handling and Storage

Handling: Ensure an eye bath and safety shower are available and ready for use. Avoid contact with eyes, skin and clothing. Do not inhale product dust. Wash thoroughly after handling.

Storage: Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Do not store near open flames, heat or other sources of ignition. Avoid freezing or excessive heat.

Section 8: Exposure Controls / Personal Protection

Workplace Exposure Standards:

Magnesium Oxide: Dust not otherwise classified, as inspirable dust ES TWA: 10mg/m³. Note: where heating or burning occurs, Worksafe Australia lists MgO fumes as a hazardous substance. MAK value: 6mg/m³ as magnesium oxide fumes. ES TWA: 10mg/m³. TLV TWA: 10mg/m³.

Calcium Oxide: TLV TWA: 2mg/m³. ES TWA: 2mg/m³. MAK value 5mg/m³ – measured as the inhalable fraction of the aerosol. MAK Category 1 Peak Limitation: For local irritants.

Silicon Dioxide: TLV TWA 0.1mg/m³ (respirable dust). ES TWA – none assigned. Notice of intended change: TLV TWA: 0.05mg/m³.

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Engineering Controls: Use in a well-ventilated area. General exhaust is adequate under normal operating conditions. Correct fit is essential to ensure adequate protection.

Personal Protective Equipment (PPE): RESPIRATOR: Use a NIOSH/MSHA approved respirator if exposure limits are exceeded (AS1715/1716). EYES: Use appropriate goggles (AS1336/1337). HANDS: Wear protective gloves (AS2161). CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).



General hygiene: Wash hands after handling with soap and water. Do not eat, drink or smoke when handling this product.

Section 9: Physical and Chemical Properties

Appearance (physical state, colour, etc.): White to pink, crumbly powder.

Odour: None

Boiling Point / Melting Point: 3600°C / 2600 - 2800°C

Specific Gravity: 1.2 (H₂O = 1)

Flash Point: Non-combustible solid.

Flammability: Non-combustible solid.

Flammable Limits: Not applicable.

Ignition temperature: Not applicable.

pH: 7 - 9 (20% aqueous slurry).

Solubility in Water: Insoluble.

Section 10: Stability and Reactivity

Stability of the Substance: Stable under normal conditions of storage.

Conditions to avoid: Avoid dust formation, open flames, heat, Exposure to moist air or water and other sources of ignition.

Material to avoid: Strong oxidizing agents, strong acids and strong alkalis

Hazardous decomposition Products: Not known.

Hazardous polymerization: Will not occur.

Section 11: Toxicological Information

Acute Effects:

Swallowed: Considered an unlikely route of entry in commercial and industrial environments. The material is regarded as practically non-toxic but may be harmful if swallowed in large quantity. Oral administration would generally result in purging.

Skin: The material may be mildly irritating and may cause drying of the skin.

Eye: The dust is irritating and may be abrasive to the eyes.

Inhaled: Inhalation of airborne dust may cause irritation to the mucous membrane and upper airways. symptoms of exposure can include coughing, sneezing and breathing difficulties.

Chronic Effects:

Chronic Toxicity: Not known.

Irritation/Corrosion: Not known.

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Carcinogenicity: Not considered to be a carcinogen.

Mutagenic Effects: Not suspected of causing genetic defects.

Reproductive or developmental effects: Not known.

Section 12: Ecological Information

Potential Environmental Considerations: Not known to be hazardous to the environment. Avoid release to waterways, sewers and storm water drains.

Ecotoxicity in water:

Chronic:

Phytotoxicity: No Data

Persistence and Degradability: Persistence unlikely, Biodegradable.

Mobility: No data.

Bioaccumulation: Not likely.

BOD and COD: No Data

Products of Biodegradation: No Data

Toxicity of the Products of Biodegradation: No Data

Section 13: Disposal Considerations

Disposal Information: Recycle wherever possible. Bury residue in an authorised landfill. Recycle containers wherever possible or dispose of in an authorised landfill.

Section 14: Transport Information

Hazard Class: None

UN Number: None

Packing Group: None

Hazchem Code: None

Land Transport: Check regulations

Sea Transport: Check regulations

Air Transport: Check regulations

Other Information:

Section 15: Regulatory Information

HSNO Approval Number:

HSNO Classifications: None

Regulatory status: This product is exempt from registration, being an oral nutritional compound compliant with S4 of the ACVM regulations 2001.

Section 16: Other Information

Interpretation and Abbreviations

Controls applying to a substance:

- * denotes that changes have been made to these controls, further information on these changes is located in the transfer notice for that substance,
- (R) abbreviation for the term Regulation of the Hazardous Substances regulations

AICS – Australian Inventory of Chemical Substances

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AOX – Absorbable organic halogens.
APF – Assigned Protection Factor.
BOD – Biochemical Oxygen Demand China
COD – Chemical Oxygen Demand
DSL – Canadian Domestic Substances List.
EC50 – Half maximal effective concentration. The concentration of a toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.
EINECS – European Inventory of Existing Commercial Chemical Substances.
ENCS – Japanese Existing and New Chemical substances.
IARC – International Agency for Research on Cancer.
IDLH – Immediately Dangerous to Life or Health Concentrations.
ISHL – Japanese Industrial Safety and Health Law List of Chemicals.
LOEL – Lowest Observed Effect Level.
LD⁵⁰ – Lethal Dose sufficient to kill 50 percent of the test population within a certain time
LD_{LO} – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).
MAK – Maximum workplace concentration in the workplace air that generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance when a person is repeatedly exposed during long periods, usually 8 hours daily, 40hour working week).
NOAA – National Oceanic and Atmospheric Administration.
NOEC – No Observed Effect Concentration.
NTP – National Toxicology Program.
NZIoC – New Zealand Inventory of Chemicals.
OECD HPV – The Organisation for Economic Co-operation and Development High Product Volume Chemicals.
PEL – Permissible exposure limit.
PPE – Personal Protective Equipment.
Prop 65 – California Proposition 65 List of Chemicals.
RTECS – Registry of Toxic Effects of Chemical substances
STEL – Short term exposure limit.
TOC – Total Organic Carbon.
TSCA – US Toxic Substances Control Act Existing Chemicals.
TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
VOC – Volatile Organic Compounds.

Date of Preparation/Review: 5th September 2019

Sources of key data used to compile the datasheet:

Manufacturers SDS
NZ EPA CCID
Health and Safety at Work (Hazardous Substances) Regulations 2017
Hazardous Substances (Minimum Degrees of Hazard) Notice 2017
Hazardous Substances (Safety Data Sheets Notice 2017
Hazardous Substances (Classification) Notice 2017
Labelling of Hazardous Substances Technical Guide 2012

DISCLAIMER

The information contained in this safety data sheet was obtained from current and reliable sources. This data is supplied without warranty, expressed or implied, regarding its correctness and accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product.

END OF SDS