

Version 1.1

Issue date 30/09/2024

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Identifier

Product Name	Magnesium Oxide Ultrafine
Other Names	Magnesium Oxide
Proper Shipping Name	Magnesium Oxide
Other means of Identification	None

Relevant identified uses of the substance or mixture

Relevant identified uses	Nutritional supplement for livestock
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Details of the supplier of the safety data sheet

Registered company name	Vetpak Limited
Address	249 Bruce Berquist Dr, Te Awamutu 3800.
Telephone	(07) 870 2024
Website	www.vetpak.co.nz
Email	sales@vetpak.co.nz

Emergency telephone numbers

Association/ Organisation	New Zealand National Poison information centre
Emergency telephone number	0800 764 766 (07) 870 2024 Vetpak. 8.00am to 5.00pm Monday to Friday except public holidays.
Other emergency telephone numbers	New Zealand emergency services 111

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification:

This product is not hazardous according to the criteria of the Globally Harmonised System of classification and labelling of chemicals (GHS)

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures

CAS Number	% (weight)	Name
1309 – 48 – 4	> 95 %	Magnesium Oxide
1305 – 78 – 8	< 5 %	Calcium Oxide
7631 – 86 – 9	< 5 %	Silicon dioxide
1309 – 37 – 1	< 1%	Iron Oxide
1344 – 28 – 1	< 1%	Aluminum Oxide
1313 – 13 – 9	< 1%	Manganese dioxide

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

Eye contact	<ul style="list-style-type: none"> ➤ Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. ➤ Remove contact lenses if present and easy to do. ➤ If eye irritation occurs, get medical advice/attention.
Skin contact	<ul style="list-style-type: none"> ➤ Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. ➤ If skin irritation occurs, get medical advice/attention.
Inhalation	<ul style="list-style-type: none"> ➤ Remove victim to fresh air and keep at rest in a position comfortable for breathing. ➤ If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing.
Ingestion	<ul style="list-style-type: none"> ➤ Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if large quantities of this material are swallowed or if you feel unwell. ➤ Never give anything by mouth to an unconscious person.
Advice to the doctor	Treat symptomatically and supportively. Most important symptoms and effects, both acute and delayed: None known.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing media	<ul style="list-style-type: none"> ➤ Dry chemical, ➤ Carbon dioxide (CO₂), ➤ Foam or water spray for extinction.
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Flammability Conditions	➤ Non-combustible. Material does not burn
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Advice for fire fighters

Fire fighting	<ul style="list-style-type: none"> ➤ If safe to do so, move undamaged containers from fire area. ➤ Cool containers with water spray until well after fire is out
Fire/explosion hazard	➤ Non-combustible material
Special fire fighting hazards	➤ Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Protection Equipment	➤ Wear positive pressure self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Response Procedure	<ul style="list-style-type: none"> ➤ Ensure adequate ventilation. ➤ Do not touch or walk through spilled material - Spillages may be slippery! Promptly clean up spills. ➤ Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Large spills	<ul style="list-style-type: none"> ➤ Alert fire brigade and tell them location and nature of hazard ➤ Prevent spillage from entering the waterways or drains ➤ Consider evacuation (or protect in place) ➤ Increase ventilation
Clean Up Procedures	➤ With clean shovel, place material into clean, dry container and cover loosely.



	Move containers from spill area.
Containment	➤ Prevent further leakage or spillage if safe to do so. Prevent dust cloud.
Decontamination	➤ Flush residue with water.
Environment Precaution Measures	<ul style="list-style-type: none"> ➤ Prevent entry into drains and waterways. ➤ Dispose of any absorbent material properly according to local authority regulations

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

Safe Handling	<ul style="list-style-type: none"> ➤ Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. ➤ Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. ➤ Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. ➤ Use personal protective equipment as required
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Conditions for safe storage, including any incompatibilities

Suitable container	➤ Keep in the original container
Storage incompatibility	<ul style="list-style-type: none"> ➤ Store in a well-ventilated place, out of direct sunlight, protected from extremes of temperature and humidity. ➤ Keep containers tightly closed when not in use - check regularly for spills. ➤ Keep away from incompatible materials

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

General	<p>Magnesium oxide fume: 8hr WES-TWA = 10 mg/m³</p> <p>New Zealand WES Silica-Amorphous (Precipitated silica): WES-TWA 10 mg/m³ Calcium oxide:</p> <p>WES-TWA 2 mg/m³ Silica-Crystalline a-Quartz: WES-TWA = 0.05 mg/m³ (respirable dust), confirmed carcinogen</p>
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Exposure controls

Appropriate engineering controls	<p>A system of local and/or general exhaust is recommended to keep employee exposures as low as possible.</p> <p>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.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>Always wash hands before smoking, eating, drinking or using the toilet.</p> <p>Wash contaminated clothing and other protective equipment before storage or re-use.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ➤ Safety glasses with side shields ➤ Chemical goggles ➤ Contact lenses may pose a special hazard soft contact lenses may absorb and concentrate materials. ➤ Medical personal should be trained and readily available in the event of chemical exposure; they should begin eye irrigation and remove contact lenses as soon as



	practicable. Lenses should be removed at the first sign of eye irritation
Skin protection	Wear general protective gloves e.g. light weight rubber gloves
Hand / feet protection	As above for hands; wear appropriate footwear for the environment
Other protection	<ul style="list-style-type: none"> ➤ Overalls ➤ PVC Aprons ➤ PVC protective gear ➤ Eyewash facilities ➤ Ensure there is ready access to a safety shower

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder, white to pink	Relative density (Water = 1)	1.0 g/cm ³
Odour	Odourless	Solubility	Not available
Odour threshold	Not available	Decomposition temperature	Not available
pH	7 – 9 (in 5% Water)	Viscosity	Not available
Melting point (°C)	2600 - 2800°C	Molecular weight (g/mol)	Not available
Boiling point (°C)	3600°C	Taste	Not available
Flash point (°C)	Not available	Explosive properties	Not explosive
Evaporation rate	Not available	Oxidising properties	Not available
Flammability	Not flammable	Volatile component (% vol)	None

SECTION 10 – STABILITY AND REACTIVITY

General Information	Stable under normal conditions of storage
Chemical stability	Stable under normal conditions of use.
Conditions to avoid	Avoid dust formation, open flames, heat, Exposure to moist air or water and other sources of ignition.
Incompatible materials	Strong oxidizing agents, strong acids and strong alkalis
Hazardous Polymerisation	Hazardous polymerisation will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

General Information	Breathing in dust may result in respiratory irritation Magnesium oxide – ORAL - LD50 = 3990mg/kg (Rat) Silicon dioxide – ORAL - LD50 = 8160mg/kg (Rat) Magnesium dioxide – ORAL - LD50 = 8500mg/kg (Rat) Calcium oxide – ORAL - LD50 = 500mg/kg (Rat)
Ingestion	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.
Inhalation	Inhalation of airborne dust may cause irritation to the mucous membrane and upper airways. Symptoms of exposure can include coughing, sneezing and breathing difficulties.
Eyes	Dust may cause mild eye irritation. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.
Skin	Contact with skin may result in irritation
Carcinogen	Carcinogenic to Humans



Mutagen	Not applicable
Reproductive Toxicity	Not applicable

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity	Keep out of waterways Magnesium hydroxide - LC50: =511.31mg/L (96h, Pimephales promelas) Calcium oxide - LC50: =1070mg/L (96h, Cyprinus carpio)
Persistence/Degradability	No information available.
Bioaccumulation Potential	Material does not bioaccumulate.
Environmental Impact	No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	<ul style="list-style-type: none"> ➤ Do not allow wash water from cleaning or process equipment to enter drains ➤ It may be necessary to collect all wash water for treatment before disposal ➤ In all case disposal to sewer may be subject to local laws and regulations and these should be considered first ➤ If in doubt contact the responsible authority ➤ Contact manufacturer for recycling options or consult local or regional waste management authority for disposal ➤ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed
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SECTION 14 – TRANSPORT INFORMATION

No labels required

Land transport (ADG)

UN Number	No data available
Packing group	No data available
UN proper shipping name	Magnesium oxide
Environmental hazard	Not Hazardous
Transport hazard classes	No data available
Special precautions for user	No data available

Air transport (ICAO-IATA / DGR)

UN Number	No data available
Packing group	No data available
UN proper shipping name	Magnesium oxide
Environmental hazard	Not Hazardous
Transport hazard classes	No data available
Special precautions for user	No data available

Sea transport (IMDG / GGVSee)

UN Number	No data available
Packing group	No data available
UN proper shipping name	Magnesium oxide
Environmental hazard	Not Hazardous



Transport hazard classes	No data available
Special precautions for user	No data available
Marine Pollutant	No data available

SECTION 15 – REGULATORY INFORMATION

Safety, health and environment regulations / legislation specific for the substance or mixture

GHS Codes	None
Australia – AICS	Yes
Europe – EINEC / ELINCS / NLP	Yes
New Zealand – NZIoC	Yes - All ingredients are on the inventory
Environmental Protection Authority (New Zealand)	Hazardous Substances and New Organisms Amendment Act 2015
Approval Code	Non Hazardous
Regulator Status	This product is exempt from registration, being an oral nutritional compound compliant with S4 of the ACVM regulations 2001.

SECTION 16 – OTHER INFORMATION

While Vetpak Limited in good faith has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Vetpak Limited accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

New Zealand National Poison Information Centre: 0800 764 766
New Zealand Emergency Services: 111
Vetpak Limited: +64 7 870 2024

Definitions and abbreviations

PC – TWA	Permissible concentration – time weighted average
PC – STEL	Permissible concentration – short term exposure limit
IARC	International agency for research on cancer
ACGIH	American conference of Government Industrial Hygiene
STEL	Short term exposure limit
TEEL	Temporary emergency exposure limit
IDLH	Immediate dangerous to life or health concentration
OSF	Odour safety factor
NOAEL	No observed adverse effect level
LOAEL	Lowest observed adverse effect level
TLV	Threshold limit value
LOD	Limit of detection
OTV	Odour threshold value
BCF	BioConcentration factors

END OF SDS

