

Ballance Agri-Nutrients

Version No: 3.1	
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017	

Issue Date: 20/12/2022 Print Date: 21/12/2022 L.GHS.NZL.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	Pure Dolomite
Chemical Name	Not Applicable
Chemical formula	Not Applicable
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Fertiliser.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Ballance Agri-Nutrients
Address	161 Hewletts Rd Mount Maunganui New Zealand
Telephone	+64 800 222 090
Fax	Not Available
Website	www.ballance.co.nz
Email	customerservices-mount@ballance.co.nz

Emergency telephone number

Association / Organisation	CHEMCALL
Emergency telephone numbers	Freephone: 0800 CHEMCALL (0800 243 622) (24 Hours/ 7 Days)
Other emergency telephone numbers	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

Not considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

Classification ^[1]	Not Applicable
Determined by using GHS/HSNO criteria	Not Available
Label elements	
Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

Hazard statement(s)

Not Applicable

Precautionary statement(s) Prevention Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name			
1317-65-3	58-61	limestone			
546-93-0	36-41	magnesium carbonate			
Legend:	egend: 1. Classification by vendor; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available				

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Magnesium is present in the blood, as a normal constituent, at concentrations between 1.6 to 2.2 meq/L. Some 30% is plasma bound. At serum magnesium levels of 3-4 meq/L, signs of CNS depression, loss of reflexes, muscular tone and power, and bradycardia occur. Cardiac arrest (sometimes fatal) and/or respiratory paralysis can occur at plasma levels of 10-15 meq/L. For acute or short term repeated exposures to magnesium:

- Symptomatic hypermagnesaemia appears rarely in the absence of intestinal or renal disease.
- Elevated magnesium levels may cause hypocalcaemia because of decreased parathyroid hormone activity and decreased end-organ responsiveness.
- Patients with severe hypermagnesemia may develop sudden respiratory arrest and must be watched closely for apnoea.
- ▶ Use fluids, then vasopressors for hypotension. Frequently hypotension responds to calcium administration.
- Induce emesis or administer lavage if patient presents within 4 hours of ingestion. Use sodium cathartics, with caution, in presence of cardiac or renal failure.
- Activated charcoal is not useful.
- Calcium is an antagonist of magnesium action and is an effective antidote when serum levels exceed 5 meq/L and the patient exhibits symptoms. The adult dose of calcium gluconate is 10 ml of a 10% solution over several minutes. [Ellenhorn and Barceloux: Medical Toxicology]

SECTION 5 Firefighting measures

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result					
Advice for firefighters						
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. 					
Fire/Explosion Hazard	 Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and 					

explosion.	
In the same way as gases and vapours, dusts in the form of a cloud are only ignitiable to dust always and vapours. A dust in the form of a cloud are only ignitiable to dust always the applicable to dust and vapours.	
concepts on lower explosive immit (LEL) and upper explosive immit (DEL) are applicable to dust clouds but offer the LEL is offer called use, - this is because of the inbergent difficulty of achieving because dust clouds at bids temperatures (for dusts the LEL is offer called the	
"Minimum Exolosible Concentration", MEC).	
When processed with flammable liquids/vapors/mists,ignitable (hybrid) mixtures may be formed with combustible dusts.	
Combustion products include:	
carbon monoxide (CO)	
carbon dioxide (CO2)	
metal oxides	
other pyrolysis products typical of burning organic material.	
May emit poisonous fumes.	
May emit corrosive fumes.	

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable, labelled container for waste disposal.
Major Spills	Moderate hazard. CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion.
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods

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are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	limestone	Calcium carbonate	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	limestone	Limestone (Calcium carbonate)	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	magnesium carbonate	Magnesite	10 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
limestone	45 mg/m3	210 mg/m3		1,300 mg/m3
magnesium carbonate	45 mg/m3	500 mg/m3		3,000 mg/m3
magnesium carbonate	45 mg/m3	260 mg/m3		1,600 mg/m3
Ingredient	Original IDLH		Revised IDLH	
limestone	Not Available		Not Available	
magnesium carbonate	Not Available		Not Available	

MATERIAL DATA

Exposure controls

	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can
Appropriate engineering controls	be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene. hitrile rubber. butyl rubber. polyvinyl chloride.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1

up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

• The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
 Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under

appropriate government standards such as NIOSH (US) or CEN (EU)

· Use approved positive flow mask if significant quantities of dust becomes airborne.

 \cdot Try to avoid creating dust conditions.

Class P2 particulate filters are used for protection against mechanically and thermally generated particulates or both.

P2 is a respiratory filter rating under various international standards, Filters at least 94% of airborne particles Suitable for:

· Relatively small particles generated by mechanical processes eg. grinding, cutting, sanding, drilling, sawing.

· Sub-micron thermally generated particles e.g. welding fumes, fertilizer and bushfire smoke.

Biologically active airborne particles under specified infection control applications e.g. viruses, bacteria, COVID-19, SARS

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance Grey gritty powder; insoluble in water (alkaline).

Physical state	Divided Solid	Relative density (Water = 1)	2.8
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	900
Melting point / freezing point (°C)	900 decomp.	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

Inhaled Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be

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	conducted on individuals who may be exposed to furthe	er risk if handling and use of the mate	erial result in excessive exposures.
Innetia	Not normally a hazard due to non-volatile nature of pro	duct	
Skin Contact	 Repeated exposure may cause skin cracking, flaking o The material may produce moderate skin irritation; limit produces moderate inflammation of the skin in a sti produces significant, but moderate, inflammation w being present twenty-four hours or more after the e Skin irritation may also be present after prolonged or redermatitis is often characterised by skin redness (eryth thickening of the epidermis. At the microscopic level the intracellular oedema of the epidermis. Open cuts, abraded or irritated skin should not be expotently into the blood-stream through, for example, cuts, Examine the skin prior to the use of the material and er 	r drying following normal handling an ted evidence or practical experience ubstantial number of individuals follow when applied to the healthy intact skir and of the exposure period. apeated exposure; this may result in a ema) and swelling (oedema) which n ere may be intercellular oedema of th obsed to this material abrasions, puncture wounds or lesion nsure that any external damage is su	nd use. suggests, that the material either: wing direct contact and/or n of animals (for up to four hours), such inflammation a form of contact dermatitis (nonallergic). The nay progress to blistering (vesiculation), scaling and ne spongy layer of the skin (spongiosis) and whs, may produce systemic injury with harmful effects. itably protected.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.		
Chronic	Prolonged or repeated skin contact may cause drying we Limited evidence suggests that repeated or long-term of biochemical systems. A case of chronic abuse of magnesium citrate (a mild) lethargy and severe refractory hypotension. Pathology perforated duodenal ulcer. She died after peritoneal dia A patient with normal kidney function developed symptor grams of magnesium sulfate over 18 hours. When magnesium sulfate was given to pregnant rats, a Prolonged inhalation of high concentrations of magness magnesite (magnesium oxide) produced a greater degree exposure to magnesite have been recorded. Pneumocrean and the standard state loss pretriend 1.2% of the state loss pretriend 1.2%	with cracking, irritation and possible c occupational exposure may produce of purgative), by a 62 year-old woman, revealed extreme hypermagnesaem alysis (which reduced serum-magnes omatic hypermagnesaemia with resp a sharp reduction of both the number ite (magnesium carbonate) dust caus ree of fibrosis than did crude magnes oniosis was found in about 2% of wo	termatitis following. cumulative health effects involving organs or has been reported. Symptoms of abuse included ia [6.25 mmol per litre]. She also was found to have a ium and reduced hypotension. iratory arrest and bradycardia after receiving 90 and the weight of the offspring was observed. sed pulmonary deposition and retention. Roasted site. No cases of human systemic poisoning due to rkers exposed to high concentrations of dust from
	workers exposed to roasted (calcined) magnesite. Long term exposure to high dust concentrations may comicron penetrating and remaining in the lung. A prime	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray.
	workers exposed to roasted (calcined) magnesite. Long term exposure to high dust concentrations may comicron penetrating and remaining in the lung. A prime	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray.
Pure Dolomite	Clube of roasted magnesite that also contained 153 s s workers exposed to roasted (calcined) magnesite. Long term exposure to high dust concentrations may comicron penetrating and remaining in the lung. A prime st TOXICITY Not Available	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray.
Pure Dolomite limestone	TOXICITY Not Available TOXICITY Oral (Rat) LD50; 6450 mg/kg ^[2]	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] 0 mg/24h-moderate e effect observed (not irritating) ^[1]
Pure Dolomite limestone magnesium carbonate	TOXICITY Oral (Rat) LD50; >2000 mg/kg ^[1]	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse IRRITATION Not Available	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] 0 mg/24h-moderate e effect observed (not irritating) ^[1]
Pure Dolomite limestone magnesium carbonate <i>Legend:</i>	TOXICITY Oral (Rat) LD50; >2000 mg/kg ^[1] 1. Value obtained from Europe ECHA Registered Subs specified data extracted from RTECS - Register of Tox	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse IRRITATION Not Available stances - Acute toxicity 2. Value obtai ic Effect of chemical Substances	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] D mg/24h-moderate e effect observed (not irritating) ^[1] ined from manufacturer's SDS. Unless otherwise
Pure Dolomite Iimestone magnesium carbonate Legend: LIMESTONE	TOXICITY Not Available TOXICITY Oral (Rat) LD50; 6450 mg/kg ^[2] TOXICITY Oral (Rat) LD50; >2000 mg/kg ^[1] 1. Value obtained from Europe ECHA Registered Subsisting specified data extracted from RTECS - Register of Toxic Eye (rabbit) 0.75: mg/24h - No evidence of carcinogeni The material may produce severe irritation to the eye of produce conjunctivitis. The material may cause skin irritation after prolonged of dermatitis is often characterised by skin redness (eryth spongy layer (spongiosis) and intracellular oedema of the specified data extracted from the specified has a stracted form for the specified data of the spongy layer (spongiosis) and intracellular oedema of the spongy layer (spongiosis)	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse Skin: no adverse IRRITATION Not Available stances - Acute toxicity 2. Value obtai ic Effect of chemical Substances ic properties. No evidence of mutage rausing pronounced inflammation. Re pr repeated exposure and may produ uema) and swelling the epidermis. His the epidermis.	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] 0 mg/24h-moderate e effect observed (not irritating) ^[1] ined from manufacturer's SDS. Unless otherwise nic or teratogenic effects. epeated or prolonged exposure to irritants may ce a contact dermatitis (nonallergic). This form of stologically there may be intercellular oedema of the
Pure Dolomite Iimestone magnesium carbonate Legend: LIMESTONE Acute Toxicity	TOXICITY Not Available TOXICITY Oral (Rat) LD50; 6450 mg/kg ^[2] TOXICITY Oral (Rat) LD50; 52000 mg/kg ^[1] 1. Value obtained from Europe ECHA Registered Subsispecified data extracted from RTECS - Register of Toxic Eye (rabbit) 0.75: mg/24h - No evidence of carcinogeni The material may produce severe irritation after prolonged of dermatitis is often characterised by skin redness (eryth spongy layer (spongiosis) and intracellular oedema of to	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse Skin: no adverse IRRITATION Not Available stances - Acute toxicity 2. Value obtai ic Effect of chemical Substances ic properties. No evidence of mutage ausing pronounced inflammation. Re or repeated exposure and may produ ema) and swelling the epidermis. His the epidermis.	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] D mg/24h-moderate e effect observed (not irritating) ^[1] ined from manufacturer's SDS. Unless otherwise nic or teratogenic effects. epeated or prolonged exposure to irritants may ce a contact dermatitis (nonallergic). This form of stologically there may be intercellular oedema of the
Pure Dolomite Iimestone magnesium carbonate Legend: LIMESTONE Acute Toxicity Skin Irritation/Corrosion	Toxicity Toxicity Oral (Rat) LD50; 6450 mg/kg ^[2] Toxicity Oral (Rat) LD50; 52000 mg/kg ^[1] 1. Value obtained from Europe ECHA Registered Subsispecified data extracted from RTECS - Register of Toxicity Eye (rabbit) 0.75: mg/24h - No evidence of carcinogeni The material may produce severe irritation to the eye or produce conjunctivitis. The material may cause skin irritation after prolonged of dermatitis is often characterised by skin redness (eryth spong) layer (spongiosis) and intracellular oedema of the spongy layer (spongiosis) and intracellular oedema of the spongiosis) <	ilicon dioxide. Exposure periods rang ause changes in lung function (i.e. pr symptom is breathlessness. Lung sh IRRITATION Not Available IRRITATION Eye: no adverse Skin (rabbit): 500 Skin: no adverse Skin: no adverse IRRITATION Not Available stances - Acute toxicity 2. Value obtainic Effect of chemical Substances ic Effect of chemical Substances ic properties. No evidence of mutage ausing pronounced inflammation. Re or repeated exposure and may produ tema) and swelling the epidermis. His the epidermis.	ged from 6-20 years. This condition occurred mainly in neumoconiosis) caused by particles less than 0.5 adows show on X-ray. effect observed (not irritating) ^[1] D mg/24h-moderate a effect observed (not irritating) ^[1] ined from manufacturer's SDS. Unless otherwise nic or teratogenic effects. epeated or prolonged exposure to irritants may ce a contact dermatitis (nonallergic). This form of stologically there may be intercellular oedema of the X

SECTION 12 Ecological information

×

×

Respiratory or Skin

sensitisation Mutagenicity

Endpoint Test Duration (hr) Species Value Source Not Available Not Available Not Available Not Available Not Available Not Available

STOT - Repeated Exposure

Legend:

Aspiration Hazard

×

×

X − Data either not available or does not fill the criteria for classification
→ Data available to make classification

	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	1h	Fish	4-320mg/l	4
limestone	EC50	72h	Algae or other aquatic plants	>14mg/l	2
	LC50	96h	Fish	>165200mg/L	4
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	72h	Algae or other aquatic plants	18.5mg/l	2
magnesium carbonate	EC50	72h	Algae or other aquatic plants	>18.5mg/l	2
	LC50	96h	Fish	2120mg/l	2
Legend:	Extracted from 1	. IUCLID Toxicity Data 2. Europe ECHA Register	ed Substances - Ecotoxicological Information - Ad	quatic Toxicity 4. L	IS EPA,
	Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan)			ETI (Japan)	
	- Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
magnesium carbonate	LOW	LOW
Bioaccumulative potential		
Ingredient	Bioaccumulation	
magnesium carbonate	LOW (LogKOW = -0.4605)	
Mobility in soil		
Ingredient	Mobility	
magnesium carbonate	HIGH (KOC = 1)	

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	 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 cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Not applicable as substance/ material is non hazardous.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
limestone	Not Available
magnesium carbonate	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
limestone	Not Available
magnesium carbonate	Not Available

SECTION 15 Regulatory information

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Continued...

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard				
Not Applicable	Not Applicable				
Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.					
limestone is found on the following regulatory lists					
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)		New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data			
New Zealand Approved Hazardous Substances with controls		New Zealand Inventory of Chemicals (NZIoC)			
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification		New Zealand Workplace Exposure Standards (WES)			
magnesium carbonate is found o	of Chemicals				
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)		New Zealand Workplace Exposure Standards (WES)			
New Zealand Inventory of Chemicals (NZIoC)					
Hazardous Substance Location					
Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.					
Hazard Class	Quantities				
Not Applicable	Not Applicable				

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (magnesium carbonate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	20/12/2022
Initial Date	14/12/2022

SDS Version Summary

Version	Date of Update	Sections Updated

Version	Date of Update	Sections Updated
3.1	20/12/2022	Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Chronic Health, Classification, Disposal, Fire Fighter (fire/explosion hazard), First Aid (eye), First Aid (inhaled), First Aid (skin), Personal Protection (Respirator), Storage (storage incompatibility), Storage (suitable container)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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 Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard 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 BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals **DSL: Domestic Substances List** NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances