

## 1. Identification of Substance & Company

### Product

Product name	PermaGreen Showtime
Product code	multiple
HSNO approval	HSR002521
Approval description	Animal Nutritional and Animal Care Products Group Standard 2020
UN number	NA
Proper Shipping Name	NA
DG Class	NA
Packaging group	NA
Hazchem code	NA
Uses	Animal feed premix

### Company Details

Company	<b>Blue Pacific Minerals</b>
Address	11-17 Huttloc Drive, Tokoroa 3420 New Zealand
Website	<a href="http://www.bpmnz.co.nz">www.bpmnz.co.nz</a>
Telephone	+64 7 885 0550
Email	<a href="mailto:info@bpmnz.co.nz">info@bpmnz.co.nz</a>

**Emergency Telephone Number: 0800 678 444**

## 2. Hazard Identification

### Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020:

### GHS 7 Classes

Acute toxicity category 4 (oral)  
Skin irritant category 2  
Eye irritant category 2  
STOT\* repeated exposure category 1  
Chronic aquatic category 3

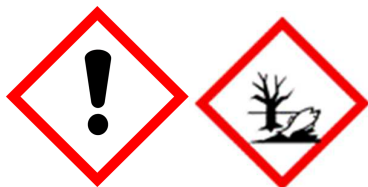
### Hazard Statements

H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H372 - Causes damage to organs through prolonged or repeated exposure.  
H412 - Harmful to aquatic life with long lasting effects.

\*STOT – system target organ toxicity

### SYMBOLS

**DANGER**



### Other Classifications

There are no other classifications that are known to apply.

### Precautionary Statements

Prevention	P102 - Keep out of reach of children. P103 - Read label before use. P260 - Do not breathe vapours. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing.
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<b>Response</b>	<p>P101 - If medical advice is needed, have product container or label at hand.                      P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.                      P330 - Rinse mouth.                      P302+P352 - IF ON SKIN: Wash with plenty of soap and water.                      P332+P313 - If skin irritation occurs: Get medical advice/ attention.                      P362 - Take off contaminated clothing and wash before re-use.                      P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.                      P337+P313 - If eye irritation persists: Get medical advice/attention.                      P314 - Get medical advice/attention if you feel unwell.</p>
<b>Storage</b>	P405 - Store locked up.
<b>Disposal</b>	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

### 3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Manganese sulphate monohydrate	7785-87-7	10-30%
Ferrous sulphate	13463-43-9	10-30%
Ingredients not contributing to GHS 7 classes	mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

### 4. First Aid

#### General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

**Recommended first aid facilities** Ready access to running water is required. Accessible eyewash is required.

#### Exposure

<b>Swallowed</b>	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
<b>Inhaled</b>	Generally, inhalation of vapours is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

#### Advice to Doctor

Treat symptomatically

### 5. Firefighting Measures

<b>Fire and explosion hazards:</b>	There are no specific risks for fire/explosion for this chemical. It is non-flammable.
<b>Suitable extinguishing substances:</b>	Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.
<b>Unsuitable extinguishing substances:</b>	Unknown.
<b>Products of combustion:</b>	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
<b>Protective equipment:</b>	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
<b>Hazchem code:</b>	NA

## 6. Accidental Release Measures

<b>Containment</b>	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
<b>Emergency procedures</b>	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
<b>Clean-up method</b>	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
<b>Disposal</b>	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
<b>Precautions</b>	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

## 7. Storage & Handling

<b>Storage Handling</b>	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.
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## 8. Exposure Controls / Personal Protective Equipment

### Workplace Exposure Standards



A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m<sup>3</sup> for respirable particulates and 10mg/m<sup>3</sup> for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Manganese sulphate monohydrate	0.02mg/m <sup>3</sup> (as Mn)	not established
	Ferrous sulphate	1mg/mg <sup>3</sup> (as Fe)	not established

### Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

### Personal Protective Equipment

<b>General</b>		Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.
<b>Eyes</b>		Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.
<b>Skin</b>		Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.

**Respiratory**

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with a particulated filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

**WES Additional Information**

Not applicable

**9. Physical & Chemical Properties**

<b>Appearance</b>	Liquid
<b>Odour</b>	characteristic
<b>Odour Threshold</b>	no data
<b>pH</b>	no data
<b>Freezing/melting point</b>	no data
<b>Boiling Point</b>	no data
<b>Flashpoint</b>	not flammable
<b>Flammability</b>	not flammable
<b>Upper &amp; lower flammable limits</b>	no LEL or UEL
<b>Vapour pressure</b>	no data
<b>Vapour density</b>	no data
<b>Specific gravity/density</b>	no data
<b>Solubility</b>	suspension in water
<b>Partition coefficient</b>	no data
<b>Auto-ignition temperature</b>	no data
<b>Decomposition temperature</b>	no data
<b>Viscosity</b>	no data
<b>Particle Characteristics</b>	no data

**10. Stability & Reactivity**

<b>Stability</b>	Stable
<b>Conditions to be avoided</b>	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
<b>Incompatible groups</b>	Strong oxidising agents, strong acids.
<b>Substance Specific Incompatibility</b>	none known
<b>Hazardous decomposition products</b>	Decomposes emitting toxic fumes including oxides of carbon, metal oxides, sulphur oxides.
<b>Hazardous reactions</b>	none known

**11. Toxicological Information**

**Summary**

IF SWALLOWED: harmful if swallowed. May irritate the gastrointestinal system with nausea, abdominal pain, diarrhoea, lethargy, vomiting.

IF IN EYES: may cause eye irritation.

IF ON SKIN: may cause skin irritation.

IF INHALED: dust may irritate respiratory irritation.

CHRONIC TOXICITY: exposure to manganese may lead to metal fume fever – chills, fever, aching muscles, dryness in the mouth and throat and headaches.

**Supporting Data**

<b>Acute</b>	<b>Oral</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is between 300 and 2000 mg/kg. Data considered includes: Manganese sulphate monohydrate 782mg/kg (rat), ferrous sulphate 500mg/kg (rat).
	<b>Dermal</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is >2,000 mg/kg.
	<b>Inhaled</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h.
	<b>Eye</b>	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	<b>Skin</b>	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
<b>Chronic</b>	<b>Sensitisation</b>	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	<b>Mutagenicity</b>	No ingredient present at concentrations > 0.1% is considered a mutagen.

**Carcinogenicity  
Reproductive /  
Developmental  
Systemic**

No ingredient present at concentrations > 0.1% is considered a carcinogen.  
No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.  
The mixture is considered to be a known or presumed target organ toxicant, because at manganese sulphate present in greater than 1% is known or presumed to be a target organ toxicant. This product may affect Not applicable.

**Aggravation of  
existing conditions**

None known.

## 12. Ecological Data

### Summary

This mixture may be harmful towards aquatic organisms with long lasting effects. In all cases prevent run-off to drains, sewers and waterways.

### Supporting Data

<b>Aquatic</b>	Using EC <sub>50</sub> 's for ingredients, the calculated EC <sub>50</sub> for the mixture is between 10 and 100 mg/L. Data considered includes: Manganese sulphate monohydrate 61 mg/l (72h, algae).
<b>Bioaccumulation</b>	No data
<b>Degradability</b>	No data
<b>Soil</b>	No evidence.
<b>Terrestrial vertebrate</b>	See acute toxicity.
<b>Terrestrial invertebrate</b>	No evidence of toxicity towards terrestrial invertebrates.
<b>Biocidal</b>	no data
<b>Environmental effect levels</b>	No EELs are available for this mixture or ingredients

## 13. Disposal Considerations

<b>Restrictions</b>	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
<b>Disposal method</b>	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
<b>Contaminated packaging</b>	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

## 14. Transport Information

### Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

<b>UN number:</b>	NA	<b>Proper shipping name:</b>	NA
<b>Class(es)</b>	NA	<b>Packing group:</b>	NA
<b>Precautions:</b>	NA	<b>Hazchem code:</b>	NA

### IMDG

<b>UN number:</b>	NA	<b>Proper shipping name:</b>	Not regulated
<b>Class(es)</b>	NA	<b>Packing group:</b>	NA
<b>Precautions:</b>	NA	<b>EmS</b>	NA

### IATA

<b>UN number:</b>	NA	<b>Proper shipping name:</b>	Not regulated
<b>Class(es)</b>	NA	<b>Packing group:</b>	NA
<b>Precautions:</b>	NA	<b>ERG Guide</b>	NA

## 15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

### Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bundling & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

### Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

## 16. Other Information

### Abbreviations

<b>Approval Code</b>	Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020 Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>EPA</b>	Environmental Protection Authority (New Zealand)
<b>GHS</b>	Globally Harmonised System of Classification and Labelling of Chemicals, 7 <sup>th</sup> revised edition, 2017, published by the United Nations.
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>NZIoC</b>	New Zealand Inventory of Chemicals
<b>STEL</b>	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
<b>STOT RE</b>	System Target Organ Toxicity – Repeated Exposure
<b>STOT SE</b>	System Target Organ Toxicity – Single Exposure
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UEL</b>	Upper Explosive Limit
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

## References

<b>Data</b>	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
<b>Controls</b>	EPA notices, <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> , Health and Safety at Work (Hazardous Substances) Regulations 2017, <a href="http://www.legislation.govt.nz">www.legislation.govt.nz</a>
<b>WES</b>	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
<b>Other References:</b>	Suppliers SDS

## Review

Date	Reason for review
October 2023	Not applicable – new SDS

## Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS 7 classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email [info@datachem.co.nz](mailto:info@datachem.co.nz) or phone: +64 21 1040951.

