Biofert

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21 Irish Road, Pokeno, New Zealand 2471

SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product:	**Moana Extra**
Product Use:	Fertiliser and Animal Health
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	**Fertspec Ltd t/a Biofert**
Address:	21 Irish Road, Pokeno Waikato
Telephone:	+64 9 233 6491 0800PACBIO (0800722246)
Emergency No:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	14 May 2025

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms

Irritant Chronic Corrosive Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (Oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1B	H411	Toxic to aquatic life with long lasting effects.	Aquatic Chronic 2
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, vapours or sprays
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTRE or doctor / physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	If exposed or concerned: Get medical advice / attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice / attention.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Cas Number	Weight %
Boron	12280-03-4	1-3
Copper Sulphate	7758-98-7	1-3
Zinc Sulphate	7446-20-0	1-5
Cobalt Sulphate	10124-43-3	1-3
Manganese Sulphate	7785-87-7	1-3
Iron Sulphate	7782-63-0	1-3
Magnesium Chloride	7786-30-3	1-5

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If on Skin	Wash skin with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention.
If Swallowed	Give 1 or 2 glasses of water or milk to drink (if conscious). Encourage vomiting. Repeat until vomit fluid is clear. Seek medical attention. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	May be harmful if swallowed.
Inhalation:	Not applicable.
Skin:	Causes mild irritation. May cause an allergic skin reaction.
Eye:	Causes serious eye irritation.
Chronic:	Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non-Flammable
Hazards from combustion products	None known.
Suitable Extinguishing media	Use fire extinguishing media for surrounding fires.
Precautions for firefighters and special protective clothing	Wear protective gear. Do not allow to enter waterways.
HAZCHEM CODE	**3Z**

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel.

Do not allow to enter drains and water courses.

When caught in bunded area use appropriate waste disposal method to remove spillage as soon as possible after spill with inert absorbent material (e.g. lime).
Dispose of in compliance with local and/or national regulations detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, vapours or spray.
- When using do not eat, drink or smoke.
- Wash hands and exposed skin before meals and after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Keep in original container, tightly closed.
- Keep away from food and drink.
- Store in a cool well-ventilated area.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

Engineering Controls

Ensure adequate ventilation is available.

Personal Protection Equipment

Eyes	Wear full face mask. Avoid wearing contact lenses.
Hands	Wear protective gloves.
Skin	Wear overalls.
Respiratory	Not required.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Brown/Grey
Odour	Not available
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	None known.
Conditions to Avoid	Extreme temperatures
Incompatible Materials	Strong oxidisers
Hazardous Decomposition Products	None known.

Section 11 Toxicological Information

Acute Effects:

Swallowed	May be harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes eye damage.
Skin	Causes mild skin irritation. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Magnesium Chloride Natural Flake (7786-30-3)	2800 mg/kg (rat)	-	-
Boron (12280-03-4)	2500 mg/kg (rat)	-	-
Copper Sulphate (7758-98-7)	125 mg/kg (rabbit)	-	-
Zinc Sulphate (7446-20-0)	1000 mg/kg (rat)	-	-
Cobalt Sulphate (10124-43-3)	424 mg/kg (rat)	-	-
Manganese Sulphate (7785-87-7)	782 mg/kg (rat)	-	-
Iron Sulphate (7782-63-0)	1520 mg/kg (mouse)	-	-

Section 12. Ecotoxicological Information

HSNO Classes: 9.1B Toxic to aquatic life with long lasting effects.
9.3C Harmful to terrestrial vertebrates.

Product:	
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Individual component information (Please refer to www.epa.govt.co.nz for full details):

Copper Sulphate (Cas No 7758-98-7)

Route	Species	Duration	Value LC50/EC50
Acute aquatic, fish	Pimephales promelas Fathead minnow	96 hrs - static	0.0028 mg/L
Chronic aquatic, fish	Oncorhynchus mykiss rainbow trout, Donaldson trout	15 days	<0.012 mg/L
Aquatic, Crustacean	Bosmina longirostris Water flea	48 hrs	0.0014 mg/L
Aquatic, Algal	Thalassiosira pseudonana (alga, saltwater)	72hrs (static)	0.005 mg/L
Bioaccumulative	Not determined		
Rapidly Degradable	No		

Zinc Sulphate, Heptahydrate (Cas No 7446-20-0):

Route	Species	Duration	Value LC50/EC50
Aquatic, Fish	Oncorhynchus mykiss	96 hrs	0.30179 mg/L
Aquatic, Crustacean	-	-	0.18 mg/L
Aquatic, Algal	-	-	0.44 mg/L
Bioaccumulative	Not determined		
Rapidly Degradable	No		

Cobalt Sulphate (Cas No 7758-98-7):

Route	Species	Duration	Value LC50/EC50
Aquatic, Fish	-	-	<0.1 mg/L
Aquatic, Crustacean	-	-	<0.1 mg/L
Aquatic, Algal	Selenastrum capricornutum (Algae)	72 hrs	0.4 mg/L
Bioaccumulative	Not determined		
Rapidly Degradable	No		

Do not allow to enter waterways

Section 13. Disposal Considerations

Disposal Method:
Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste – Corrosive, Ecotoxic" and that the label also has the Corrosive and Ecotoxic Pictogram waste type identifier, and the Business name, address and phone number.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for Transport in NZ ; NZS 5433:2012

Road, Rail, Sea and Air Transport

UN No	3082
Class – Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S.
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L, it can be transported as a non-DG as ling as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: Fertilisers (subsidiary) – HSR002571

HSNO Classification: 6.1E(oral), 6.3B, 6.5B, 6.8B, 6.9B, 8.3A, 9.1B, 9.3C

HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L (9.1B)
Emergency Response Plan	1000L (9.1B)
Secondary Containment	1000L (9.1B)
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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