

Section 1 – Identification of the Material and Supplier

Product:	MP Refresh	
Product Use:	Liquid biological fertilizer and soil conditioner	
Company Details:	EMNZ (Naturefarm) Ltd, 16 Maces Road Bromley Christchurch 8062	
E-mail Address:	Paul@emnz.co.nz	
Telephone numbers:	0800 366 948 (03)374 6323	
Distributor:	Living Turf NZ 24d Allright place Mt Wellington Auckland 1060 0800 428 268	
Telephone number:		
Emergency Telephone	National Poisons Centre	0800 POISON (0800 764 766)

Section 2 – Hazards Identification



Classified as a hazardous substance according to the criteria in the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Reprinted 2017

Not classified as dangerous goods for transport according to NZS 5433:2020 Transport of Dangerous Goods on Land.

Acute Oral Toxicity	Category 4	Serious Eye Damage	Category 1
Reproductive Toxicity	Category 2		

Signal Word: DANGER

Hazard Statements:

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H361	Suspected of damaging fertility or the unborn child.

Prevention Statements:

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.
P264	Wash hands with soap and water thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear eye/face protection.

Response Statements:

P101	If medical advice is needed, have product container or label at hand.
P301+P312	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
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 attention.
P310	Immediately call a POISON CENTER or doctor.
P330	Rinse mouth.

Storage Statements:

P405	Store locked up.
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Disposal Statements:

P501 Disposal of contents/containers should be made in accordance with all applicable local, regional and national laws and regulations.

Section 3 – Composition/Information on ingredients

Ingredient	CAS Number	Concentration
Calcium Nitrate Tetrahydrate	13477-34-4	30 – 60%
Boric Acid Anhydrous	10043-35-3	< 1%
Non-hazardous ingredients	-	Balance

Section 4 – First aid measures

General Advice:

Treat according to person's condition and specific of exposure. Treat symptomatically. For further information the medical practitioner should refer to the phone numbers in Section 1.

- Inhalation:** No first aid should be needed.
- Ingestion:** Rinse mouth. If swallowed do NOT induce vomiting, immediately contact the NZ National Poison Centre (0800 764 766) or a doctor. Never give anything by mouth to an unconscious person.
- Skin Contact:** Wash skin well with soap and water.
- Eye Contact:** Immediately flush with water for 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

Section 5 – Fire-fighting measures

- Extinguishing Media:** This product can act as an oxidising agent and support combustion by liberating oxygen even if smothered. Do not attempt to smother the fire. Use extinguishing agent suitable for surrounding fire.
- Hazardous combustion products:** Oxides of carbon and nitrogen. Ammonia
- Precautions for Firefighters:** Not an oxidiser at the manufactured concentration. It may become an oxidising liquid if concentrated by evaporation. Cool containing vessels with flooding quantities of water until well after fire is out. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. May intensify a fire if the mass is not kept cooled.

Section 6 – Accidental release measures

- Spills and Disposal:** In the event of a major spill, prevent spillage from entering drains or watercourses. Stop leak if safe to do so and contain spill using vermiculite or mineral spill absorbents. Sweep up and collect recoverable product into appropriately labelled containers for recycling or salvage and dispose of promptly. Consider vacuuming area if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash affected area preventing run off from entering drains. If a significant quantity of material enters drain, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulation prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 – Handling and Storage

- Precautions for safe handling:** Keep exposure to this product to a minimum and minimize the quantities kept in work area. Check Section 8 of this SDS for details of personal protective measures and make sure that those measures are followed. The measures detailed below under 'Storage' should be followed during handling to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Conditions for safe storage:

Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under 'Incompatibilities' in Section 10. Check packaging – there may be further storage instructions on the label.

Section 8 – Exposure controls/Personal Protection

Workplace Exposure Standards:

No workplace exposure standards have been established for this product by Worksafe New Zealand.

Appropriate Engineering Controls:

Provide sufficient ventilation to prevent build-up of fumes.

Personal Protective Equipment

Eye/Face – Protective glasses or face mask that comply with AS/NZS 1336:2014.
 Skin – Protective gloves that comply with AS/NZS 2161.2:1998.
 Clothing – When dealing with a spill wear protective clothing that complies with AS/NZS 4501.1:2008 and AS/NZS 2210.3:2009

Section 9 – Physical and Chemical Properties

Appearance:	Liquid	Flammability:	No data available
Colour:	Brown	Explosive Limits:	No data available
Odour:	No data available	Vapour Pressure:	No data available
pH @ 20°C:	No data available	Vapour Density:	No data available
Specific Gravity:	No data available	Solubility:	Complete in water
Viscosity @ 20°C:	No data available	Partition Coefficient:	No data available
Freezing Point:	No data available	Auto-ignition Temperature:	No data available
Boiling Point:	No data available	Decomposition Temperature:	No data available
Flash Point:	No data available		

Section 10 – Stability and Reactivity

Chemical Stability:	Not an oxidiser at the manufactured concentration. May become oxidising if concentrated by evaporation. Take precaution to avoid mixing combustibles and other incompatible materials.
Incompatible Materials:	Halogens, copper alloys, copper and zinc, strong acids/alkalis.
Hazardous Decomposition Products:	Combustion forms carbon dioxide and if incomplete carbon monoxide and in addition to oxides of nitrogen and ammonia and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment and unconsciousness followed by coma and death.
Hazardous Polymerisation:	This product will not undergo polymerization reactions.

Section 11 – Toxicological Information

Summary:

No specific data is available for this product.
 Toxicological data has been evaluated/calculated for the mixture. The product is considered to have the following potential health effects.
 Contact with the eyes may result in serious eye irritation.

Supporting Data:

Acute	Oral:	This product has been deemed to have an LD ₅₀ of 1168mg/kg based on GHS summation rules applied to the formulation.
	Dermal:	No data available.
	Inhalation:	No data available.
	Eye	The mixture causes serious eye damage based on the quantities of the relevant components in the mixture.
	Skin	No data available.
Chronic	Sensitisation:	No data available.
	Mutagenicity:	No data available.
	Carcinogenicity:	No data available.
	Reproductive:	The mixture is suspected of damaging fertility or causing harm to the unborn child based on the concentration of Boric Acid in the formulation.
	Systemic:	No data available.

Section 12 – Ecological Information

Summary:

No specific data is available for this product.

Aquatic:	No data available.
Bioaccumulation:	No data available.
Degradability:	No data available.
Soil:	No data available.
Terrestrial Vertebrate:	No data available.
Terrestrial Invertebrate:	No data available.

Section 13 – Disposal Considerations

Rinse container well with water before disposal. Preferably re-cycle container, otherwise send to an authorized landfill or similar.

Section 14 – Transport Information

This product is not classified as dangerous goods for transport according to the following:

- NZS 5433:2020 –Transport of Dangerous Goods on Land.
- IMDG – International Maritime Dangerous Goods Code.
- IATA – International Air Transport Association.

This substance is not a Marine Pollutant.

Section 15 – Regulatory Information

NZ EPA Approval Code: Fertilisers (Subsidiary Hazard) Group Standard 2020 – HSR002571

HSNO Controls:

Trigger quantities for this substance:

	Trigger Quantity
Certified Handler	Not Required
Location Certificate	Not Required
Tracking Trigger Quantities	Not Applicable
Signage Trigger Quantities	1,000L (Serious Eye Damage 1)
Emergency Response Plan Trigger Quantities	1,000L (Acute Oral Toxicity 4)

NZIoC: All components are listed on the New Zealand Inventory of Chemical Substances.

Section 16 – Other Information

SDS Version Number: 1.0
SDS Effective Date: 27 March 2023
SDS Review Date: 27 March 2028
SDS Regulation: The content and format of this SDS is in accordance with the HSNO Approved Code of Practice (No. HSNOCOP 8-1 09-06): Preparation of Safety Data Sheets.

Abbreviations:

CAS	Chemical Abstracts Service (Registry Number)
CCID	Chemical Classification and Identification Database
g	Grams
g/mL	Grams per millilitre (Specific Gravity)
GHS	Globally Harmonised System of Hazard Classification
HSNO	Hazardous Substances and New Organisms Act 1997
NZEPA	New Zealand Environmental Protection Agency
mL	Millilitres

Disclaimer:

This document is compiled based on current knowledge as provided by Naturefarm Ltd or information obtained from third party sources relating to safety and handling precautions for this product.

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