

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Easy Start TE Max**
 Item Code:
 Product Use: Fertiliser
 Restriction of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd
 Address: 10 Firth Street
 Drury, 2113

Telephone: +64 9 294 8453
 Fax Number: +64 9 294 7272

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 1 August 2019

Section 2. Hazards Identification

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

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
9.1C	H412	Harmful to aquatic life with long lasting effects.	Aquatic Chronic 3

Prevention Code	Prevention Statement
P103	Read label before use.
P273	Avoid release to the environment.

Response Code	Response Statement
None allocated	

Storage Code	Storage Statement
None allocated	

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

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Zinc Oxide	< 1.5	1314-13-2
Manganese sulphate	< 0.4	7785-87-7
Iron sulphate	< 1	7720-78-7

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. If eye irritation persists call doctor/physician.
If on Skin	Wash skin with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
If Swallowed	Wash out mouth with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTER or doctor/physician if you feel unwell.
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. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:	None known.
Treatment:	Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable, Non-combustible material.
Hazards from decomposition products	Thermal decomposition can lead to release of irritating gases and vapours.
Suitable Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Precautions for firefighters and special protective clothing	Wear self-contained breathing apparatus for firefighting if necessary.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Use personal protective equipment as detailed in Section 8. Avoid dust formation. Keep unnecessary and unprotected personnel from entering.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Use mechanical handling equipment.

Clean contaminated surface thoroughly.

Dispose of according to Local Regulations as detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Avoid release to the environment.
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Wash hands before breaks and at the end of workday.

Precautions for Storage:

- Keep in a dry, cool place. Keep away from direct sunlight.
- Keep away from food, drink and animal feeding stuffs.
- Store away from incompatible materials listed in Section 10.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Zinc oxide fume [1314-13-2]		3		10
Dust		10		

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 2017 9TH EDITION.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
zinc oxide	Workers	Inhalation	Long-term exposure	5 mg/m ³
	Workers	Ingestion	Long-term exposure, Systemic effects	0,8 mg/kg
	Workers	Skin contact	Long-term exposure, Systemic effects	83 mg/kg
iron sulphate	Workers	Skin contact	Acute effects, systematic effects	2,8 mg/kg
Remarks:	Exposure time: 24 h			
	Workers	Inhalation	Acute effects, systemic effects	9,9 mg/m ³
	Workers	Skin contact	Chronic effects, systemic effects	2,8 mg/kg
Remarks:	Exposure time: 24 h			
	Workers	Inhalation	Chronic effects, systemic effects	9,9 mg/m ³
	Consumers	Ingestion	Acute effects, systemic effects	1,4 mg/kg
Remarks:	Exposure time: 24 h			
	Consumers	Skin contact	Acute effects, systemic effects	1,4 mg/kg

Remarks:	Exposure time: 24 h			
	Consumers	Inhalation	Acute effects, systemic effects	2,5 mg/m ³
	Consumers	Ingestion	systemic effects,	1,4 mg/kg
	Chronic effects			
Remarks:	Exposure time: 24 h			
	Consumers	Skin contact	Chronic effects, systemic effects	1,4 mg/kg
Remarks:	Exposure time: 24 h			
	Consumers	Inhalation	Chronic effects, systemic effects	2,5 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
zinc oxide	Fresh water	0,0206 mg/l
	Marine water	0,0061 mg/l
Remarks:	Derivation of the PNEC, Zinc	
	Fresh water sediment	235,6 mg/l
	Derivation of the PNEC, Zinc	
	Marine sediment	113 mg/l
	Derivation of the PNEC, Zinc	
	Soil	106,8 mg/l
	Derivation of the PNEC, Zinc	
	Behaviour in waste water treatment plants	0,052 mg/l
	Derivation of the PNEC, Zinc	
iron sulphate	Water	
	This product has no known ecotoxicological effects.	
	Behaviour in waste water treatment plants	2483 mg/l
	Fresh water sediment	246000 mg/kg
	Marine sediment	246000 mg/kg
	Soil	276000 mg/kg

Engineering Controls

Provide adequate ventilation.

Personal Protection Equipment



Eyes	Tightly fitting safety goggles.
Hands and Skin	Chemical-resistant gloves.
Respiratory	Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
General	Do not flush into surface water or sanitary sewer system.

Section 9 Physical and Chemical Properties

Appearance	Crystalline
Colour	White
Odour	Odourless
Odour Threshold	Not available
pH	ca. 4,5, Concentration: 10 g/l
Boiling Point	Not available
Melting Point	190 °C Decomposes before melting.
Freezing Point	Not available
Flash Point	Not available
Flammability	The product is not flammable.
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Bulk Density	950 kg/m ³
Solubilities	200 g/l (20 °C)
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Stable at normal ambient temperature and pressure.
Kinematic Viscosity	Not available
Particle Size	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions of storage and use.
Hazardous Reactions	Hazardous decomposition products formed under fire conditions.
Conditions to Avoid	Avoid moisture. Extremes of temperature and direct sunlight.
Incompatible Materials	Strong acids and strong bases Alkaline earth metals
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapours., ammonia, Oxides of phosphorus

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	References
zinc oxide					
	LD50 Oral	Rat	>5000 mg/kg	Not applicable.	
	LD50 Inhalation	Rat	>5.7mg/l Exp time = 4hrs	Not applicable.	Test atmosphere: Vapour
manganese sulphate (1:1):					
	LD50 Oral	Rat	2150 mg/kg	Not applicable.	
iron sulphate					
	LD50 Oral	Rat	>2000 mg/kg	Not applicable.	OECD Test Guideline 401
	LD50 Oral	Rat	657-4390 mg/kg 434	Not applicable.	Calculation method
	LD50 dermal	Rat	>1992mg/kg	Not applicabl	Converted acute toxicity point

Section 12. Ecotoxicological Information

HSNO Classes: 9.1C = Harmful to aquatic life with long lasting effects.

Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	May contribute to eutrophication in static waters, therefore should not be released into surface waters. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Toxicity

Product/ingredient name	Result	Species	Exposure	References
zinc oxide				
	Acute LC50 > 0.14mg/l water	Fish	96h	Test Type: static test
	Acute EC50 2.2 mg/l	Daphnia	48h	Test Type: static test
	Acute EC50 =0.17mg/l	Selenastrum capricornutum	72h	Test Type: static test
manganese sulphate (1:1):				
	Acute EC50 30mg/l	Daphnia	-	-

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling

emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty the bag by shaking to remove as much as possible of its contents. Empty bags may be disposed of as non-hazardous material or returned for recycling.



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

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: Fertilisers (subsidiary) – HSR002571

HSNO Classification: 9.1C

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000kg (9.1C)
Emergency Response Plan	1000kg (9.1C)
Secondary Containment	1000kg (9.1C)
Restriction of Use	None

Section 16 Other Information

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
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

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

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