

## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: WUXAL<sup>®</sup> Brassica  
 Product No: 22780  
 Product Use: Fertiliser, preparation for plant nutrition.  
 Restriction of Use: Refer to Section 15

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

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

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 25 July 2019 v2

### Section 2. Hazards Identification

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

**Group Standard & EPA Approval Code: Fertilisers (Subsidiary) - HSR002571**

#### Pictograms



Irritant



Chronic

Signal Word: **WARNING**

HSNO Class.	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
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	STOT RE 1
9.1C	H412	Harmful to aquatic life with long lasting effects.	Aquatic Chronic 3

#### 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 vapours or spray.
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 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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

**Storage Code                      Storage Statement**

P405	Store locked up.
------	------------------

**Disposal Code                      Disposal Statement**

P501	Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product and/or rinsate as a hazardous material according to Local Regulations.
------	--

**Section 3.                      Composition / Information on Ingredients**

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Manganese Sulphate	1-5	10034-96-5
Zinc Sulphate-monohydrate	1-5	7446-20-0
Boric Acid	<2	10043-35-3

**Section 4.                      First Aid Measures**

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Immediately rinse the mouth. DO NOT induce vomiting. Consult the doctor in case of persistent trouble.
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:

<b>Ingestion:</b>	May be harmful if swallowed.
<b>Inhalation:</b>	Not applicable
<b>Skin:</b>	Causes mild skin irritation.

**Eye:** Causes severe eye irritation.  
**Chronic:** Suspected of damaging fertility or the unborn child.  
 Causes damage to organs through prolonged or repeated exposure.

**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	Non Flammable
<b>Hazards from decomposition products</b>	The material itself is harmless and hardly inflammable. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of sulfur oxide gases is possible.
<b>Suitable Extinguishing media</b>	Water, carbon dioxide, dry extinguishing media, foam.
<b>Precautions for firefighters and special protective clothing</b>	Do not stay in dangerous zone without suitable protecting clothes and self-contained breathing apparatus. Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.
<b>HAZCHEM CODE</b>	<b>1Z</b>

**Section 6. Accidental Release Measures**

Wear suitable protecting clothes. Avoid product contact and formation of vapours/aerosols. Do not inhale vapours/aerosols. In event of vapours/aerosols wear respiratory protection, safety glasses and gloves.

Take up with absorption media. Sweep or vacuum material when possible and shovel into a waste container.

Disposal of contaminated material as waste according to section 13.

Ensure that the product does not reach the ground-water, water bodies or the drainage system.

**Section 7. Handling and Storage**

**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 vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

**Storage**

- It is recommended to design stockrooms so that the product is well-protected from weather factors, humidity, solar radiation, heat up and impurities.
- Keep containers tightly closed and store in a cool dry place.
- To fight a fire and decomposition keep care of a sufficient water supply.
- Ensure high standard of housekeeping in the storage area.
- Do not store together with food and luxury food, beverage and animal feed.
- Store locked up.
- Keep out of reach of children.
- 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 <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredient has 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 2017 9TH EDITION.

### Engineering Controls

Ensure adequate ventilation to minimize exposure

### Personal Protection Equipment



<b>Eyes</b>	In event of dust wear safety glasses.
<b>Hands</b>	Wear nitrile gloves.
<b>Skin</b>	Closed working clothes.
<b>Respiratory</b>	Required when vapours/aerosols are generated. Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances.
<b>General</b>	Do not eat and drink at work. Remove immediately soiled and soaked clothes. Wash hands and face after work.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Aqueous Crystal suspension
<b>Colour</b>	Green
<b>Odour</b>	Product specific
<b>Odour Threshold</b>	Not applicable
<b>pH (original state)</b>	Approx 4.8
<b>pH at 16g/l H<sub>2</sub>O and 20°C:</b>	Approx 7
<b>Change in physical state</b>	> 100° C evaporation of water
<b>Boiling Point</b>	Not applicable
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Flammability</b>	Not applicable
<b>Upper and Lower Explosive Limits</b>	Not applicable
<b>Explosive hazards</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Vapour Density</b>	Not applicable
<b>Density @ 20°C</b>	approx. 1.4 g/cm <sup>3</sup>
<b>Water Solubility @ 20°C</b>	To a very high degree
<b>Partition Coefficient:</b>	Not applicable
<b>Self ignition</b>	The product is not spontaneously inflammable.
<b>Decomposition Temperature</b>	Not applicable

<b>Kinematic Viscosity</b>	Not applicable
<b>Particle Characteristics</b>	Not applicable

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Reacts with alkalis setting ammonia free.
<b>Conditions to Avoid</b>	Direct solar radiation, heat up and dry up. Temperatures above +30° C.
<b>Incompatible Materials</b>	Strong alkaline materials, strong acid materials and strong oxidisers.
<b>Hazardous Decomposition Products</b>	No decomposition if correctly used. Thermic decomposition: If larger quantities of the product are on fire, the formation of sulphur oxide gases possible.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	May be harmful if swallowed. Mixture calculation = LD50 (oral): =2465 mg/kg.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Cause serious eye irritation.
<b>Skin</b>	Causes mild skin irritation.

### Chronic Effects:

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

## Section 12. Ecotoxicological Information

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

<b>Product:</b>	
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

Do not allow to enter waterways.

## Section 13. Disposal Considerations



### Disposal Method:

Triple rinse container. Add rinsate to waste container for disposal. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.

**Precautions or methods to avoid:** Do not allow to enter waterways.

## 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: 6.1E(oral), 6.3B, 6.4A, 6.8B, 6.9A, 9.1C

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(9.1C)
Emergency Response Plan	1000L (9.1C)
Secondary Containment	1000L (9.1C)
Restriction of Use	Only use for the intended purpose.

## Section 16 Other Information

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	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

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.  
Please contact the Horticulture, if further information is required.

Issue Date: 25 July 2019      Review Date: 25 July 2024