



## SAFETY DATA SHEET

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

Product: **CarboManZincPhos** Max Plus  
 Other means of Identification: Liquid Fertiliser  
 Product Use: The user should seek the advice of the county agricultural representative or a professional agricultural consultant.  
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Hortigro Ltd**  
 Address: 164 Manukau Road  
 Pukekohe  
 Auckland, 2120

Telephone: +64 9 2371777

**Emergency No: 0508673800**  
**0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 8 March 2018

### Section 2. Hazards Identification

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

**EPA Approval No: Fertilisers (subsidiary) – HSR002571**

**Pictograms**



Irritant    Chronic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (inh)	H332	Harmful if inhaled.	Acute Tox. 4
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
9.1D	H401	Toxic to aquatic life.	Aquatic Acute

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P261	Avoid breathing fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.

P273	Avoid release to the environment.
P280	Wear protective PPE.

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.
P362	Take off contaminated clothing and wash before re-use.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
None allocated	

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

### Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Phosphoric acid (85%)	13-14	7664-38-2
Phosphoric acid, manganese (2++) salt (2:1)	13-14	18718-07-5
Withheld as trade secret	10-11	CBI*
Phosphoric acid, zinc salt (2:1), dihydrate	3-4	13598-37-3

### 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 with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs: get medical advice/attention.
If Swallowed	Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again
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 or if you feel unwell.

#### Most important symptoms and effects, both acute and delayed

Symptoms:

<b>Ingestion:</b>	Not applicable.
<b>Skin:</b>	Causes skin irritation.
<b>Eye:</b>	Causes severe eye irritation.
<b>Chronic:</b>	May cause damage to organs through prolonged or repeated exposure.

<b>Section 5. Fire Fighting Measures</b>
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<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	During a fire, or when heated to decomposition, irritating/toxic phosphorus oxides, such as phosphorus pentoxide may be generated.
<b>Suitable Extinguishing media</b>	Use extinguishing agent suitable for surrounding fire.
<b>Precautions for firefighters and special protective clothing</b>	Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.
<b>HAZCHEM CODE</b>	<b>None Allocated</b>

<b>Section 6. Accidental Release Measures</b>
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Wear adequate personal protective equipment as detailed in Section 8.

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff.

Dispose of waste according to the applicable local and national regulations.

<b>Section 7. Handling and Storage</b>
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**Precautions for Handling:**

- Keep out of reach of children.
- Read label before use.
- Avoid breathing fumes, vapours or spray.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Transfer equipment should be constructed of chemical-resistant plastic or stainless steel.
- Do not store in aluminium or steel containers.
- Wear chemically protective equipment during handling.
- Avoid contact with eyes, skin and clothing. Do not wear contact lenses while handling this material.
- Keep away from extreme heat and flame. Use caution when opening containers.

**Precautions for Storage:**

- Store away from incompatible materials listed in Section 10.
- Store in an area that is: ventilated.
- Empty containers may contain hazardous residue.
- Store separately. Keep closed.
- Protect from Freezing. Store above 10 degrees Celsius.

<b>Section 8 Exposure Controls / Personal Protection</b>
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**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

<b>Substance</b>	<b>TWA ppm mg/m<sup>3</sup></b>	<b>STEL ppm mg/m<sup>3</sup></b>
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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

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Personal Protection Equipment



<b>Eyes</b>	Wear chemical safety goggles and face shield when contact is possible.
<b>Skin</b>	Wear chemical protective clothing e.g. gloves, aprons, boots.
<b>Respiratory</b>	Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Clear brown
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	2-3 (1% solution)
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Relative Density</b>	1.41 - 1.42 at 20 °C (water = 1)
<b>Water Solubility</b>	Soluble in water
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Not reactive under normal conditions of use.
<b>Conditions to Avoid</b>	Freezing. Incompatible materials.
<b>Incompatible Materials</b>	Incompatible with aluminum and steel.
<b>Hazardous Decomposition Products</b>	During a fire, or when heated to decomposition, irritating/toxic phosphorus oxides, such as phosphorus pentoxide may be generated.

**Section 11 Toxicological Information****Acute Effects:**

<b>Swallowed</b>	Not applicable.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Harmful if swallowed. May cause irritation to the respiratory tract.
<b>Eye</b>	Causes severe eye irritation.
<b>Skin</b>	Causes skin irritation.

**Acute Toxicity - Substances**

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Phosphoric acid (85%)	0.84 mg/L (rabbit) (4-hour exposure)	1530 mg/kg (rat)	2740 mg/kg (rabbit)
Phosphoric acid, zinc salt (2:1), dihydrate		300-2000 mg/kg (rat)	
Phosphoric acid, manganese(2++) salt (2:1)		> 2000 mg/kg (rat)	

**Chronic Effects:**

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	May cause damage to organs if inhaled through prolonged or repeated exposure.

**Section 12. Ecotoxicological Information**

HSNO Classes: 9.1D = Toxic to aquatic life.

**Acute Aquatic Toxicity**

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Phosphoric acid (85%)	138 mg/L (96-hour)			
Phosphoric acid, zinc salt (2:1), dihydrate	0.14-0.26 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)			

<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

**Section 13. Disposal Considerations****Disposal Method:**

Empty containers retain product residue. Follow label warnings even if container appears to be empty. Triple rinse and dispose 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

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

EPA Approval Code: Fertilisers (subsidiary) – HSR002571

HSNO Classification: 6.1D(inh), 6.3A, 6.4A, 6.9B, 9.1D

<b>HSW (HS) Regulations 2017 and EPA Notices</b>	<b>Trigger Quantity</b>
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10000L (6.1D, 9.1D)
Emergency Response Plan	1000L (6.1D)
Secondary Containment	1000L (6.1D)
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. HSNO Approved Code of Practice: 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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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

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

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