



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:

| | |
|-------------------|--|
| Ingestion: | Not applicable. |
| Skin: | Causes skin irritation. |
| Eye: | Causes severe eye irritation. |
| Chronic: | May cause damage to organs through prolonged or repeated exposure. |

Section 5. Fire Fighting Measures

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

Section 6. Accidental Release Measures

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.

Section 7. Handling and Storage**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.

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

| Substance | TWA | | STEL | |
|-----------|-----|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |

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



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

Section 9 Physical and Chemical Properties

| | |
|---|----------------------------------|
| Appearance | Liquid |
| Colour | Clear brown |
| Odour | Odourless |
| Odour Threshold | Not available |
| pH | 2-3 (1% solution) |
| 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 |
| Relative Density | 1.41 - 1.42 at 20 °C (water = 1) |
| Water Solubility | Soluble in water |
| 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 | Not reactive under normal conditions of use. |
| Conditions to Avoid | Freezing. Incompatible materials. |
| Incompatible Materials | Incompatible with aluminum and steel. |
| Hazardous Decomposition Products | 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:**

| | |
|-------------------|--|
| Swallowed | Not applicable. |
| Dermal | Not applicable. |
| Inhalation | Harmful if swallowed. May cause irritation to the respiratory tract. |
| Eye | Causes severe eye irritation. |
| Skin | 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:

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

| | |
|--------------------------------------|-------------------|
| Persistence and degradability | No data available |
| Bioaccumulation | No data available |
| Mobility in Soil | No data available |
| Other adverse effects | 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

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

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