



SAFETY DATA SHEET

| Section 1. | Identification of the material and the supplier |
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| Product: | CarboZinc |
| Other means of Identification | Liquid micronutrient 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 |
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This substance is hazardous according to the Hazardous Substances (Classification) Notice 2017

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms



Irritant

Signal Word: **Warning**

| HSNO Classification | Hazard Code | Hazard Statement | GHS Category |
|---------------------|-------------|--|-------------------|
| 6.3A | H315 | Causes skin irritation. | Skin Irrit. 2 |
| 6.4A | H319 | Causes serious eye irritation. | Eye Irrit. 2A |
| 9.1C | H412 | Harmful to aquatic life with long lasting effects. | Aquatic Chronic 3 |

| Prevention Code | Prevention Statement |
|-----------------|---------------------------------------|
| P103 | Read label before use. |
| P264 | Wash hands thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective PPE. |

| Response Code | Response Statement |
|------------------|--|
| P362 | Take off contaminated clothing and wash before re-use. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| 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. |
|---------------------------|-------|-------------|
| Non-Hazardous Ingredients | 95-97 | N/A |
| Zinc Glycolate | 2-3 | 6669-35-8 |
| Zinc Tartrate | 1-2 | 551-64-1 |

Section 4. First Aid Measures

Routes of Exposure:

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| 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. |

Most important symptoms and effects, both acute and delayed

Symptoms:

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| Ingestion: | Not applicable. |
| Skin: | Causes skin irritation. |
| Eye: | Causes severe eye irritation. |

Section 5. Fire Fighting Measures

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| Hazard Type | Non Flammable |
| Hazards from combustion products | By heating and fire, irritating vapours/gases may be formed. Carbon monoxide and carbon dioxide. |
| Suitable Extinguishing media | Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Do not use water jet as an extinguisher, as this will spread the fire. |
| Precautions for firefighters and | Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. Move containers from fire area if you can do so |

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| special protective clothing | without risk. Use water spray to keep fire-exposed containers cool. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. |
| HAZCHEM CODE | None Allocated |

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| Section 6. Accidental Release Measures |
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Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Wear adequate personal protective equipment.

Do not allow into any sewer, on the ground or into any waterway.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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

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| Section 7. Handling and Storage |
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Precautions for Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective PPE.
- 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.
- Do not breathe vapours or mists.
- 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.

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

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

No ingredients have 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

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



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| Eyes | Wear chemical safety goggles and face shield when contact is possible. |
| Skin | Wear chemical protective gloves. |
| Respiratory | Not normally required if product is used as directed. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment. |

Section 9 Physical and Chemical Properties

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| Appearance | Liquid |
| Colour | Dark brown |
| Odour | Fruity |
| Odour Threshold | Not available |
| pH | 4 - 5 (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 | 1.23 - 1.24 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

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| Stability of Substance | This product is stable under normal conditions. |
| Possibility of hazardous reactions | Not reactive under normal conditions of use. |
| Conditions to Avoid | Incompatible materials. |
| Incompatible Materials | Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid). |
| Hazardous Decomposition Products | Carbon monoxide and carbon dioxide. |

Section 11 Toxicological Information

Acute Effects:

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|-------------------|-------------------------------|
| Swallowed | Not applicable. |
| Dermal | Not applicable. |
| Inhalation | Not applicable. |
| Eye | Causes severe eye irritation. |
| Skin | Causes skin irritation. |

Chronic Effects:

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

Section 12. Ecotoxicological Information

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

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| 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: 6.3A, 6.4A, 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**

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

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| 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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