SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Carbo*K***
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:	1 December 2017

Section 2. Hazards Identification

This substance is **NOT** hazardous according to the Hazardous Substances (Classification) Notice 2017

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Non-hazardous Ingredients	100	-

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 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	Rinse mouth. Wash out mouth thoroughly 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. Seek medical attention if needed.
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: None known.

Section 5. Fire Fighting Measures

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 special protective clothing	Move containers from fire area if you can do so 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. 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 protective gear as detailed in Section 8. Evacuate all unnecessary personnel.

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.

Section 7. Handling and Storage

Precautions for Handling:
- No special handling precautions are necessary.

Precautions for Storage:
- Store away from incompatible materials listed in Section 10.
- Store in an area that is: well-ventilated.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**

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.

Personal Protection Equipment

Eyes	Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin	Not required, if used as directed.
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

Appearance	Liquid
Colour	Dark brown
Odour	Fruity
Odour Threshold	Not available
pH	7 - 8 (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	1.42 - 1.43 at 20 ºC (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	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:

Swallowed	Ingestion may cause irritation and malaise.
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.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

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:
Triple rinse and dispose according to Local Regulations.

Precautions or methods to avoid: None known.

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 **NOT** classified hazardous according to the Hazardous Substances (Classification) Notice 2017

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
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

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

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