

## SAFETY DATA SHEET

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

Product: Transformer  
 Product No:  
 Product Use: Soil Conditioner  
 Restrictions of Use: Refer to Section 15

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

Telephone: +64 9 294 8453  
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New Zealand: **0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 27 March 2023

### Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

**EPA Approval No: Additives, Process Chemicals and Raw Materials (Flammable) – HSR002495**

#### Pictograms



Signal Word: **WARNING**

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable Liquids Cat. 3	H226	Flammable liquid and vapour.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Reproductive toxicity Cat. 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to terrestrial vertebrates	H433	Hazardous to terrestrial vertebrates.

#### Prevention Code      Prevention Statement

P103	Read carefully and follow all instructions.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.

P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical, ventilating and lighting] equipment
P242	Use non-sparking tools.
P243	Take action to prevent static discharge.
P264	Wash hands thoroughly after handling.
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**

P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use water fog, foam, dry chemical powder or Carbon dioxide (CO2) to extinguish.

**Storage Code                      Storage Statement**

P405	Store locked up.
P403 + P235	Store in a well-ventilated place. Keep cool.

**Disposal Code                      Disposal Statement**

P501	Refer to Section 13.
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**Section 3.                      Composition / Information on Ingredients**

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Alcohol Ethoxylate	15 - 25	84133-50-6
Orange Oil	5 - 15	8028-48-6
Proprietary Mixture <sup>1</sup> (including Ethanol (Ethyl alcohol) [64-17-5])	Proprietary	Proprietary

**Composition Comments:**

<sup>1</sup> Components CAS numbers and ingredient concentrations are either non-hazardous or have been withheld as trade secret.

**Section 4.                      First Aid Measures**

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If on Skin	Remove contaminated clothing immediately and wash skin with soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/ attention.
If Swallowed	Rinse out the mouth. Never give anything to an unconscious person. Seek medical assistance 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. Get medical advice if breathing becomes difficult.

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

Symptoms: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Suspected of damaging fertility or the unborn child.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

### General information

Take off all contaminated clothing immediately. If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

## Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Flammable liquid or vapour. Does not sustain combustion.
<b>Hazards from combustion products</b>	During fire, gases hazardous to health may be formed.
<b>Suitable Extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Do not use water jet as an extinguisher, as this will spread the fire.
<b>Precautions for firefighters and special protective clothing</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
<b>HAZCHEM CODE</b>	<b>3Y</b>

## Section 6. Accidental Release Measures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. 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.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

## Section 7. Handling and Storage

### Handling

- Read carefully and follow all instructions.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Ground and bond container and receiving equipment.
- Use explosion-proof [electrical, ventilating and lighting] equipment
- Use non-sparking tools.
- Take action to prevent static discharge.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.
- Protect material from direct sunlight.
- Avoid contact with eyes, skin and clothing. Avoid prolonged exposure.
- Pregnant or breastfeeding women must not handle this product.
- Should be handled in closed systems, if possible.
- Use only outdoors or in a well-ventilated area.

### Storage

- Store away from incompatible materials listed in Section 10.
- Store in a well-ventilated place. Keep cool out of direct sunlight.
- Store in original tightly closed container.
- Keep in an area equipped with sprinklers.

## 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>
Ethanol (Ethyl alcohol) [64-17-5]	1000	1880	-	-

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 APRIL 2022 13TH EDITION.

### Engineering Controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply and eye wash facilities.

### Personal Protective Equipment



<b>Eyes</b>	Wear safety glasses with side shields (or goggles). Wear face shield if there is risk of splashes.
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<b>Hands and Skin</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing. Use of an impervious apron is recommended. Wear appropriate thermal protective clothing, when necessary.
<b>Respiratory</b>	When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators. Chemical respirator with organic vapor cartridge and full-face piece.
<b>Hygiene</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Routinely wash work clothing and protective equipment to remove contaminants.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Green
<b>Odour</b>	Citrus
<b>Odour Threshold</b>	Not available
<b>pH</b>	6.8 - 7.8
<b>Boiling Point</b>	40.6°C
<b>Melting/Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Flammable
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Density @ 20°C</b>	Not available
<b>Relative Density</b>	0.98 - 1.02 (Water = 1)
<b>Solubilities</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	80 - 150 mPas
<b>Particle Characteristics</b>	Not available

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Hazardous Reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Incompatible Materials</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Sulphur oxides. Sodium oxides.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not applicable. > 5000 mg/kg, (rat) (OECD 425)
<b>Dermal</b>	Not applicable. > 2000 mg/kg, (rat) (OECD 402)

<b>Inhalation</b>	Harmful if inhaled. > 3.69 mg/l, (rat) (OECD 403)
<b>Eye</b>	Causes serious eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.
<b>Skin</b>	Not applicable.

**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>	Not applicable.

**Section 12. Ecotoxicological Information**

<b>Product:</b>	
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulation</b>	No data available on bioaccumulation.
<b>Mobility in Soil</b>	No data available for this product.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**Ecotoxicity**

Toxic to aquatic life. Hazardous to terrestrial vertebrates.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
OROBOOST (CAS mixture)		
Algae	EC50 Pseudokirchnerella subcapitata	3.38 mg/l, 72 hours
Crustacea	EC50 Daphnia	13.4 mg/l, 48 hours
Fish	LC50 Zebrafish (Danio rerio)	20.5 mg/l, 96 hours

Do not allow to enter waterways.

**Section 13. Disposal Considerations**

**Disposal Method:**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Precautions and methods to avoid:**

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Section 14 Transport Information**

**This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020 and SNZ HB 5433:2021**

*Test results from Sustained Combustion testing (L.2 of Part 3 section 32 of UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria) indicate that this material does not sustain combustion. At the discretion of the shipper, this material is*

not subject to 49 CFR 173.120(a), IATA DGR section 3.3.1 or IMDG Code chapter 2.3.1.2.  
Reference 49 CFR 173.120(b)(3), IATA DGR section 3.3.1.3(a) or IMDG Code chapter 2.3.1.3.1.

## Section 15 Regulatory Information

### This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Additives, Process Chemicals and Raw Materials (Flammable) – HSR002495

#### Trigger quantities:

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	500L (>5L), 1500L(<5L), 250L open
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	10 000L
Secondary Containment	10 000L
Fire Extinguishers	500L = 2x
Restriction of Use	None

## Section 16 Other Information

### Glossary

Cat	Category
EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
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 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
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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