

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Oligo Iron-DTPA 6% Liquid**
 Item Code:
 Product Use: Use of the substance/preparation: foliar, fertigation, soil.
 Restriction of Use: Refer to Section 15

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

Telephone: +64 9 294 8453
 Fax Number: +64 9 294 7272

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 13 February 2020

Section 2. Hazards Identification

The manufacturer has stated that this substance is NOT hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
diammonium [N,N-bis[2-[bis(carboxymethyl)amino]ethyl]glycinato(5-)]ferrate(2-)	Proprietary	85959-68-8

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 call doctor/physician.

If on Skin: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.

If Swallowed: Rinse mouth with water. DO NOT induce vomiting. 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. Call a POISON CENTER or doctor/physician if you feel unwell.

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. In case of lung irritation, first treatment with dexametason aerosol (spray). Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: None known.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable, Non-combustible material.
Hazards from decomposition products	Hazardous decomposition / combustion products: carbon oxides and nitrogen oxides (NyOx).
Suitable Extinguishing media	Depending on the materials stored in the neighbourhood use following extinguishing media: foam, water spray, dry chemical powder, CO2. Unsuitable extinguishing media: water jet.
Precautions for firefighters and special protective clothing	Fire-fighters should wear suitable protective clothing such as boots, overalls, gloves, eye and face protection and breathing apparatus. Do not allow to enter fire-fighting water to surface water or groundwater.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Wear appropriate protective clothing. Exclude non-essential people from the area. Ensure adequate ventilation.

Do not flush into public water courses. Do not empty into drains, ground or surface water and soil. If the product enters drains or water, immediately inform appropriate authorities.

Stop the leak. Collect into a suitable container using sorbent and pass for disposal. After removal, wash the spillage area with water. Dispose of according to Local Regulations detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Avoid formation of mist/aerosol.
- Handle in accordance with good industrial hygiene and safety practice.
- Use personal protective equipment according to section 8.
- Do not disposal to sewage system.

Precautions for Storage:

- Keep out of reach of children.
- Keep in original, tightly closed container in a dry well-ventilated place.
- Keep away from heat and source of ignition.
- Recommended storage temperature: 0°C till + 30°C.

Section 8 Exposure Controls / Personal Protection

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

Handle in well ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of dust.

Personal Protection Equipment



Eyes	Use safety goggles.
Skin	Handle with protective gloves (recommended nitrile gloves, layer thickness 0,11 mm and breakthrough time > 480 minutes). Use protective clothing.
Respiratory	Not required.
General	Handle in accordance with good industrial hygiene and safety practice. Change contaminated clothing. Avoid contact with skin. Avoid breathing dust. Wash hands after working with substance. When using do not eat or drink. Immediately remove spilled substance.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Transparent red - yellow
Odour	Specific
Odour Threshold	Not available
pH	6.0 – 8.0
Boiling Point	100-110°C
Melting Point	Not available
Freezing Point	is expected to be between -20 and 0°C
Flash Point	Not available
Flammability	The product is not flammable.
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	1,28+ 0,01g/cm ³
Solubilities	678 g/L
Partition coefficient (n-octanol/water)	-13,88
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	11.8 mPas at 20 °C (53% solution)
Other information:	Not available
Iron Fe	6,0 ± 0,0 5% w/w
Nitrogen N-NH4	3,0 ± 0,05 % w/w
Conductivity 1.0% sol	3.0+/-0.2 mS/cm @ 20°C

Section 10. Stability and Reactivity

Product Name: Van Iperen Oligo Iron-DTPA 6% Liquid
Date of SDS: 13 February 2020

Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

Stability of Substance	This material is stable when stored and used as directed.
Hazardous Reactions	May cause corrosion of metals.
Conditions to Avoid	Keep away from heat.
Incompatible Materials	Aluminium, nickel, zinc, copper.
Hazardous Decomposition Products	In the event of fire produces oxides of NO _x , CO, CO ₂

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
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	Available data from screening tests do not allow concluding that the assessed substance is not a P / vP. Based on expected similar behavior and fate compared to EDTA (read across) and the lack of biodegradability, DTPA- Fe(NH ₄) ₂ is slowly biodegradable in surface water under specific environmental conditions. In addition, due to high water solubility and low adsorption, DTPA will eventually leach to ground- and surface waters and not accumulate in soil.
Bioaccumulation	The substance has a low potential for bioaccumulation (the log K _{ow} is ≤ 4,5).
Mobility in Soil	The estimated log K _{oc} of DTPA-Fe(NH ₄) ₂ varied between 3 (MCI method) and -8.1 (K _{ow} method). Due to high water solubility and low adsorption, DTPA will eventually leach to ground- and surface waters and not accumulate in soil.
Other adverse effects	No data available.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse and dispose of 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

The manufacturer has stated that this substance is NOT hazardous according to the EPA 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.
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. EPA 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, if further information is required.

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