

## SAFETY DATA SHEET

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

Product: **Oligo Iron-DTPA 3.1% Liquid**  
 Product Use: Use as raw material for fertilizer solutions in agriculture and horticulture.  
 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: 4 June 2021

### Section 2. Hazards Identification

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

**EPA Approval No: Fertilisers (Corrosive) – HSR002569**

#### Pictograms



Corrosive

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Corrosive to metals Cat. 1	H290	May be corrosive to metals.

Prevention Code	Prevention Statement
P103	Read label before use.
P102	Keep out of reach of children.
P234	Keep only in original container.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P390	Absorb spillage to prevent material damage.

Storage Code	Storage Statement
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P406	Store in corrosive resistant container with a resistant inner liner.
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Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

### Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Diethylenetriaminepentaacetic acid, ferric disodium complex	26	19529-38-5
Ingredients determined to be Non-Hazardous	To 100	

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If on Skin	Rinse and then wash skin thoroughly with water and soap. Remove polluted clothing and shoes. Wash contaminated clothing before reuse. If on skin and if skin irritation or rash occurs, seek medical advice and attention.
If Swallowed	Rinse mouth with water. If victim conscious and alert, give 1-2 glasses of water to drink. Ingestion of large quantities: immediately to hospital.
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:

Inhalation:	Not applicable.
Ingested:	AFTER INGESTION OF HIGH QUANTITIES: Gastrointestinal complaints. Feeling of weakness. Metal taste.
Skin:	Not applicable.
Eye:	Slight eye irritant upon direct contact.

Notes to doctor: Treat symptomatically.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours)
<b>Suitable Extinguishing media</b>	All extinguishing media allowed. Use fire extinguishing methods suitable to surrounding conditions. Preferably: water.
<b>Precautions for firefighters and special protective clothing</b>	Exposure to fire/heat: keep upwind, consider evacuation and have neighbourhood close doors and windows. Do not breathe fumes. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European

	standard EN 469 will provide a basic level of protection for chemical incidents.
<b>HAZCHEM CODE</b>	<b>2X</b>

<b>Section 6. Accidental Release Measures</b>
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Ensure adequate air ventilation. Do not get in eyes, on skin, or on clothing. Avoid all unnecessary exposure. Wear protective gloves/protective clothing/eye protection as advised in section 8. Mark the danger area. Keep unnecessary and unprotected personnel from entering. Wash contaminated clothes.

Prevent spreading in sewers. Prevent soil and water pollution. Dam up the liquid spill.

Stop leak if safe to do so. Contain released product, pump into suitable containers. Collect as much as possible in a suitable clean container, preferably for re-use, otherwise for disposal. Take up rest of liquid spill into absorbent material sand, earth, vermiculite. Scoop absorbed substance into closing containers. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

Use corrosion proof equipment. Dispose of according to Section 13.

<b>Section 7. Handling and Storage</b>
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**Precautions for Handling:**

- Read label before use.
- Keep out of reach of children.
- Keep only in original container.
- Avoid all unnecessary exposure.
- Wear protective gloves/protective clothing/eye protection as advised in section 8.
- Use corrosion proof equipment.
- If on skin, take off contaminated clothing. Always wash hands after handling the product.
- Do not eat, drink or smoke during use.

**Precautions for Storage:**

- Store in corrosive resistant container with a resistant inner liner.
- Keep away from iron. Do not use with copper/aluminium/zinc - risk of corrosion.
- Storage temperature: -5 – 30°C
- KEEP SUBSTANCE AWAY FROM: heat sources.
- Keep container in a well-ventilated place.
- Store at a dry place, at normal room temperature.
- Keep out of direct sunlight.
- Keep containers closed when not in use - check regularly for leaks.
- Packing Materials: polyethylene, polypropylene, steel with rubber inner lining, asphalted Tanks.
- MATERIAL TO AVOID: metal, stainless steel, aluminium, zinc, iron, monel steel, nickel, copper and its alloys.

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

<b>Substance</b>	<b>TWA</b>		<b>STEL</b>	
	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>

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 2019 11TH EDITION.

<b>Diethylenetriaminepentaacetic acid, ferric disodium complex (19529-38-5)</b>	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	No hazard identified
Acute - systemic effects, inhalation	No hazard identified
Acute - local effects, dermal	No hazard identified
Acute - local effects, inhalation	No hazard identified
Long-term - systemic effects, dermal	62500 mg/kg bodyweight/day Repeated dose toxicity
Long-term - local effects, dermal	Hazard is considered as unknown (assessed qualitatively)
Long-term - systemic effects, inhalation	22 mg/m <sup>3</sup> Repeated dose toxicity
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	No hazard identified
Acute - systemic effects, inhalation	No hazard identified
Acute - systemic effects, oral	No hazard identified
Acute - local effects, dermal	No hazard identified
Acute - local effects, inhalation	No hazard identified
Long-term - systemic effects, oral	6.25 mg/kg bodyweight/day Repeated dose toxicity
Long-term - systemic effects, inhalation	5.5 mg/m <sup>3</sup> May have an effect on fertility
Long-term - systemic effects, dermal	31250 mg/kg bodyweight/day Repeated dose toxicity
Long-term - local effects, dermal	Hazard is considered as unknown (assessed qualitatively)
Long-term - local effects, inhalation	2.5
PNEC (Water)	
PNEC aqua (freshwater)	6.2 mg/l Assessmentfactor: 10
PNEC aqua (marine water)	0.62 mg/l Assessmentfactor: 100
PNEC aqua (intermittent, freshwater)	3.1 mg/l Assessmentfactor: 100
PNEC (Sediment)	
PNEC sediment (freshwater)	not derived, low adsorption is predicted based on read-across
PNEC sediment (marine water)	not derived, low adsorption is predicted based on read-across
PNEC (Soil)	
PNEC soil	1.23 mg/kg dwt Assessmentfactor: 100
PNEC (STP)	
PNEC sewage treatment plant	50 mg/l Assessmentfactor: 10

## Engineering Controls

No particular/specific measures required.

## Personal Protection Equipment



<b>Eyes</b>	Tightly fitting safety goggles.
<b>Hands</b>	Wear chemical-resistant gloves (tested to EN374): Nitrile rubber. Break through time > 480 min
<b>Skin</b>	Normal working clothes are suitable
<b>Respiratory</b>	No personal breathing protective equipment is normally required.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Brown/Black
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	6 – 7
<b>Boiling Point</b>	+/- 105 °C Decomposes on exposure to temperature rise
<b>Crystallization temperature</b>	-10 °C
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	> 100 °C

Product Name: Oligo Iron-DTPA 3.1% Liquid  
Date of SDS: 4 June 2021

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

<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure @ 50°C</b>	10.7 kPa Due to the presence of water
<b>Density</b>	1.26 kg/l (25°C)
<b>Solubilities</b>	Completely soluble in water
<b>Log Pow</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity, dynamic</b>	Not available
<b>Particle Characteristics</b>	Not available
<b>Explosive Properties</b>	Not available

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	Stable under recommended storage and treatment circumstances.
<b>Possible hazardous reactions</b>	To our knowledge, the product does not present any particular risk, under normal conditions of use.
<b>Conditions to Avoid</b>	Temperatures lower than -5°C. Unstable on exposure to light. Solutions with pH < 3 or pH > 8.
<b>Incompatible Materials</b>	Reactive or incompatible with the following materials: oxidizing agents and reducing agents. strong bases. Strong acids. hydrogen peroxide. peroxides. chlorine-based bleaching agents. metals. metal powders. metal alloys. May be corrosive to some metals. This product can cause pitting of and corrosion of some grades of stainless steel.
<b>Hazardous Decomposition Products</b>	On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours). carbon oxides (CO and CO <sub>2</sub> ). metal oxides. chlorine. Hydrogen chloride.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not applicable.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Not applicable.
<b>Skin</b>	Not applicable.

### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<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

This product is not hazardous to the environment.

### Component Toxicity:

<b>Diethylenetriaminepentaacetic acid, ferric disodium complex (19529-38-5)</b>
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LC50 fish 1	> 100 mg/l 96-h Danio rerio OECD Guideline 203 (Fish, Acute Toxicity Test) Reference: Kean M (2013a)
EC50 Daphnia 1	> 100 mg/l 48-h OECD Guideline 202 (Daphnia sp.Acute Immobilisation Test) Reference: Kean M (2013b)
EC50 other aquatic organisms 1	9.8 mg/l 72-h OECD Guideline 201 (Alga, Growth Inhibition Test) Test mat. (meas. (geom. mean)) based on: growth rate Reference: read-across
LC50 fish 2	1115 mg/l 96-h Lepomis macrochirus, read-across
LOEC (chronic)	134 mg/l 18-d Daphnia carinata. Equivalent or similar to OECD Guideline 211 (Daphnia magna Reproduction Test) Reference: Dam van, et al (1996)
NOEC (chronic)	125 mg/l 28-d Melanotaenia fluviatilis

### Persistence and degradability

<b>Diethylenetriaminepentaacetic acid, ferric disodium complex (19529-38-5)</b>	
Persistence and degradability	Slowly biodegradable in surface water under specific environmental conditions.

### Bioaccumulative potential

<b>Diethylenetriaminepentaacetic acid, ferric disodium complex (19529-38-5)</b>	
Log Kow	-11.9
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### Mobility in soil

<b>Oligo Iron-DTPA 3.1% Liquid</b>	
Ecology - soil	Soluble in water.
<b>Diethylenetriaminepentaacetic acid, ferric disodium complex (19529-38-5)</b>	
Log Koc	1 (worst case, MCI method, EPISUITE Software KOCWIN Program (v2.00))
Ecology - soil	Soluble in water. Low potential for adsorption (based on substance properties).

## Section 13. Disposal Considerations

### Disposal Method:

Triple rinse and dispose according to Local Regulations.

**Disposal methods to avoid:** Do not discharge into drains or rivers. Empty and rinsed containers can be disposed as non-hazardous material or be returned for recycling.

## Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



### Road, Rail, Sea and Air Transport

<b>UN No</b>	1760
<b>Class - Primary</b>	8
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S. (Diethylenetriaminepentaacetic acid, ferric disodium complex),
<b>Marine Pollutant</b>	No
<b>Special Provisions</b>	If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

## Section 15 Regulatory Information

### EPA Approval No: Fertilisers (Corrosive) – HSR002569

<b>HSWA &amp; EPA Controls</b>	<b>Trigger Quantity</b>
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	Not required
Secondary Containment	Not required
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 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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