

# Safety Data Sheet

according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

## 1 Identification

**Product Name: Optifert High Copper Liquid Fertiliser****Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Professional fertiliser**Details of Manufacturer or Importer:**Titan Ag Pty Ltd  
Princes Street Marina  
Suite 15/16 Princes Street  
Newport NSW 2106**Phone Number:** 02 9999 6655**Emergency telephone number:** 02 9999 6655

## 2 Hazard(s) Identification

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.

Not subject to the ADG Code when transported in Australia by Road or Rail in packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply.



Corrosion

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



Environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



Acute Toxicity (Oral) 4

H302 Harmful if swallowed.

Acute Toxicity (Inhalation) 4

H332 Harmful if inhaled.

**Signal Word** Danger**Hazard Statements**

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

(Contd. on page 2)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 1)

P280	Wear eye protection / face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

### 3 Composition and Information on Ingredients

**Chemical Characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

Hazardous Components:		
CAS: 1317-39-1	Dicopper oxide ⚠ Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302; Acute Toxicity (Inhalation) 4, H332	35-45%
CAS: 107-21-1	1,2-Ethanediol ⚠ Acute Toxicity (Oral) 4, H302; STOT SE 3, H335	5-7%

**Additional information:**

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4 First Aid Measures

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

**Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

**Eye Contact:**

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give small quantities of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Harmful if inhaled. May cause respiratory irritation.

Skin Contact: May cause skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. May cause burn to mouth, throat and stomach, gastrointestinal irritation, nausea, diarrhoea and vomiting.

### 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use fire extinguishing methods suitable to surrounding conditions.

**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include nitrogen oxides, metal oxide/oxides, ammonia. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

(Contd. on page 3)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 2)

Product is not flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: •3Z

**Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

### 6 Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots.

Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

**Methods and Materials for Containment and Cleaning Up:**

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material.

Collect the spilled material and place into a suitable container for disposal. Decontaminate spill area with detergent and water.

### 7 Handling and Storage

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from direct sunlight. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep away from strong oxidising agents, contamination by any source including metals, dust and organic materials. Keep away from calcium hypochlorite or sodium hypochlorite.

### 8 Exposure Controls and Personal Protection

**Exposure Standards:****CAS: 107-21-1 1,2-Ethanediol**

WES	STEL: 104** mg/m <sup>3</sup> , 40** ppm
	TWA: 10* 52** mg/m <sup>3</sup> , 20** ppm
	Sk,*particulate,**vapour

**Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

**Respiratory Protection:**

Use an approved respirator (recommended P2 filter) under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Chemical-resistant, impervious gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.

(Contd. on page 4)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 3)

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

**Eye and Face Protection:**

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

### 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Red
<b>Odour:</b>	Odourless
<b>Odour Threshold:</b>	No information available
<b>pH-Value at 20 °C:</b>	9.6
<b>Melting point/freezing point:</b>	-8 °C
<b>Initial Boiling Point/Boiling Range:</b>	100 °C
<b>Flash Point:</b>	No information available
<b>Flammability:</b>	Product is not flammable
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available.
<b>Vapour Pressure:</b>	No information available
<b>Density at 20 °C:</b>	1.523 g/cm <sup>3</sup>
<b>Relative Density:</b>	Not determined.
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Not relevant/applicable due to nature of the product. Miscible with water.
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>Viscosity:</b>	1,500 - 2,500 mPa·s

### 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** No dangerous reactions known under conditions of normal use.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of storage and use.

**Conditions to Avoid:** Protect from direct sunlight.

**Incompatible Materials:**

Keep away from strong oxidising agents, contamination by any source including metals, dust and organic materials. Keep away from calcium hypochlorite or sodium hypochlorite.

**Hazardous Decomposition Products:** Nitrogen oxides, metal oxide/oxides, ammonia

(Contd. on page 5)

# Safety Data Sheet

according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 4)

## 11 Toxicological Information

**Toxicity:****LD50/LC50 Values:****CAS: 1317-39-1 Dicopper oxide**

Oral	LD50	>928 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalation	LC50/4 h	3.34 mg/l (rat)

**CAS: 107-21-1 1,2-Ethanediol**

Oral	LD50	5,840 mg/kg (rat)
	LD50	9,530 mg/kg (rabbit)

**Acute Health Effects****Inhalation:** Harmful if inhaled. May cause respiratory irritation.**Skin:** May cause skin irritation.**Eye:** Causes serious eye damage.**Ingestion:**

Harmful if swallowed. May cause burn to mouth, throat and stomach, gastrointestinal irritation, nausea, diarrhoea and vomiting.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Causes serious eye damage.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

## 12 Ecological Information

**Ecotoxicity:****Aquatic toxicity:**

Very toxic to aquatic life with long lasting effects.

**CAS: 1317-39-1 Dicopper oxide**

EC50/72 h	0.333 mg/l (algae)
EC50/21 days	0.028-0.792 mg/l (daphnia)

(Contd. on page 6)

# Safety Data Sheet

according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 5)

LC50/96 h	0.08-0.28 mg/l (fish)
<b>CAS: 107-21-1 1,2-Ethenediol</b>	
EC50/48 h	49,000 mg/l (daphnia)
EC50/96 h	6,500-13,000 mg/l (green algae)
LC50/96 h	22,810 mg/l (rainbow trout)

**Persistence and Degradability:** No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.**Mobility in Soil:** No data available on finished product.**Other adverse effects:** No further relevant information available.

## 13 Disposal Considerations

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

## 14 Transport Information

<b>UN Number</b> <b>ADG, IMDG, IATA</b>	UN3082
<b>Proper Shipping Name</b> <b>ADG, IMDG, IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicopper oxide)
<b>Dangerous Goods Class</b> <b>ADG Class:</b>	9
<b>Packing Group:</b> <b>ADG, IMDG, IATA</b>	III
<b>Marine pollutant:</b>	
<b>EMS Number:</b>	F-A,S-F
<b>Hazchem Code:</b>	•3Z
<b>Special Provisions:</b>	274, 331, 335, 375, AU01
<b>Transport/Additional information:</b>	Not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs. (refer to SP AU01)
<b>Limited Quantities:</b>	5L
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P001, IBC03, LP01
<b>Packagings &amp; IBCs - Special Packing Provisions:</b>	PP1
<b>Portable Tanks &amp; Bulk Containers - Instructions:</b>	T4
<b>Portable Tanks &amp; Bulk Containers - Special Provisions:</b>	TP1, TP29

(Contd. on page 7)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.01.2022

Revision: 24.01.2022

**Product Name: Optifert High Copper Liquid Fertiliser**

(Contd. of page 6)

### 15 Regulatory Information

#### Australian Inventory of Industrial Chemicals:

All ingredients are listed.

#### Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

### 16 Other Information

**Date of Preparation or Last Revision:** 24.01.2022**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)

#### Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

#### Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020"

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Titan Ag Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.