

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

1 Identification

Product Name: Optifert Finisher 15:0:17 Titan**Recommended Use of the Chemical and Restriction on Use:** 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).



Flame over circle

Oxidising Solids 2

H272 May intensify fire; oxidizer.



Health hazard

Toxic To Reproduction 1B

H360 May damage fertility or the unborn child.



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.

Signal Word Danger**Hazard Statements**

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 1)

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

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.
P220	Keep away from clothing and other combustible materials.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P370+P378	In case of fire: Use to extinguish: CO2, powder or water spray.
P391	Collect spillage.
P405	Store locked up.
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: 6484-52-2	Ammonium nitrate ⚠ Serious Eye Damage/Irritation 2A, H319	10-70%
CAS: 7757-79-1	Nitric acid, potassium salt ⚠ Oxidising Solids 2, H272	1-30%
CAS: 7778-18-9	Calcium sulfate	1-30%
CAS: 1309-48-4	Magnesium oxide	<10%
CAS: 7446-20-0	Zinc sulfate heptahydrate ⚠ Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	<10%
CAS: 7758-99-8	Copper sulfate, pentahydrate ⚠ Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	<10%
CAS: 7782-63-0	Sulfuric acid, iron(2+) salt (1:1), heptahydrate ⚠ Acute Toxicity (Oral) 4, H302; Skin Corrosion/Irritation 2, H315; Serious Eye Damage/Irritation 2, H319	<10%
CAS: 12179-04-3	Disodium tetraborate pentahydrate ⚠ Toxic To Reproduction 1B, H360	<10%

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.

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 2)

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 medical attention.

Ingestion:

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

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation.

Skin Contact: May cause mild skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation. In extreme cases danger of methaemoglobin formation.

5 Fire Fighting Measures

Suitable Extinguishing Media: Large quantities of water. Do NOT use foam, dry powder, CO2 and sand.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include ammonia, nitrogen oxides and sulphur oxides.

Product is not flammable. However, it is an oxidiser and it may accelerate the burning of other combustible materials and intensify the fire.

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: 2Z

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 protective equipment. Keep unprotected persons away.

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 sweep granules into a pile and collect the spilled material and place into a suitable container for disposal. Avoid generating dust. Decontaminate spill area with detergent and water. Do not allow to mix with combustible or organic substances.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye contact.

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 in the original container, tightly closed when not in use.

Protect from moisture, heat, sparks, direct sunlight, open flames and other sources of ignition. Keep away from

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 3)

organic materials, reducing agents, acids, alkalis, oxidizing agents, chlorides, nitrites, metallic powders and substances containing metals such as copper, nickel, cobalt, zinc and their alloys.

8 Exposure Controls and Personal Protection

Exposure Standards:	
CAS: 7778-18-9 Calcium sulfate	
WES	TWA: 10 mg/m ³
CAS: 1309-48-4 Magnesium oxide	
WES	TWA: 10 mg/m ³
CAS: 7782-63-0 Sulfuric acid, iron(2+) salt (1:1), heptahydrate	
WES	TWA: 1 mg/m ³ as Fe
CAS: 12179-04-3 Disodium tetraborate pentahydrate	
WES	TWA: 1 mg/m ³

Engineering Controls:

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

Respiratory Protection:

Where an inhalation risk exists, wear an approved dust/particulate filter respirator. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Recommended materials: nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) gloves; with permeation time >480 min. See Australian/New Zealand Standard AS/NZS 2161 for more information. 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:

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form:	Pellets
Colour:	No information available
Odour:	Light
Odour Threshold:	No information available
pH-Value:	approx. 6
Melting point/freezing point:	Decomposes below melting point
Initial Boiling Point/Boiling Range:	Decomposes below boiling point
Flash Point:	No information available
Flammability:	Product is not flammable. However, it is an oxidiser and it may accelerate the burning of other combustible materials.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	>130 °C
Explosion Limits:	
Lower:	No information available

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 4)

Upper:	No information available
Vapour Pressure:	No information available
Density:	0.85 - 0.95
Relative Density:	No information available
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Soluble
Partition Coefficient (n-octanol/water):	No information available

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 moisture, heat, sparks, direct sunlight, open flames and other sources of ignition.

Incompatible Materials:

Keep away from organic materials, reducing agents, acids, alkalis, oxidizing agents, chlorides, nitrites, metallic powders and substances containing metals such as copper, nickel, cobalt, zinc and their alloys.

Hazardous Decomposition Products: Ammonia, nitrogen oxides and sulphur oxides.

11 Toxicological Information

Toxicity:

LD50/LC50 Values Relevant for Classification:

CAS: 6484-52-2 Ammonium nitrate

Oral	LD50	2,217 mg/kg (rat)
------	------	-------------------

CAS: 7757-79-1 Nitric acid, potassium salt

Oral	LD50	3,750 mg/kg (rat)
------	------	-------------------

Dermal	LD50	>5,000 mg/kg (rat)
--------	------	--------------------

CAS: 7446-20-0 Zinc sulfate heptahydrate

	LC50/96 h	0.33 mg/l (fathead minnow)
--	-----------	----------------------------

CAS: 7758-99-8 Copper sulfate, pentahydrate

Oral	LD50	482 mg/kg (rat)
------	------	-----------------

Dermal	LD50	>2,000 mg/kg (rat)
--------	------	--------------------

Acute Health Effects

Inhalation: May cause respiratory irritation.

Skin: May cause mild skin irritation.

Eye: Causes serious eye damage.

Ingestion:

Harmful if swallowed. May cause gastrointestinal irritation. In extreme cases danger of methaemoglobin formation.

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.

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 5)

Reproductive Toxicity: May damage fertility or the unborn child.**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:** Not expected to be a hazard.**Existing Conditions Aggravated by Exposure:** No data available.

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

Very toxic to aquatic life with long lasting effects.

CAS: 7757-79-1 Nitric acid, potassium salt

EC50/48 h 490 mg/l (daphnia)

LC50/96 h 1,378 mg/l (guppy)

CAS: 7446-20-0 Zinc sulfate heptahydrate

EC50/48 h 1.4 mg/l (daphnia) (OECD Test Guideline 202)

EC50/72 h 64.8 mg/l (algae)

EC50/3 h 5.2 mg/l (bacterial) (OECD Test Guideline 209)

CAS: 7758-99-8 Copper sulfate, pentahydrate

EC50/48 h 0.02 mg/l (daphnia)

EC50/72 h 0.02 mg/l (algae)

LC50/96 h 0.11 mg/l (rainbow trout)

Persistence and Degradability: No data available on finished product.**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.**Mobility in Soil:** No data available on finished product.**Other adverse effects:**

Prevent entry to sewers and public waters. As this fertilizer contains nitrate, heavy spillage may cause adverse environmental impact such as eutrophication in confined surface waters or nitrate contamination of ground or surface water.

13 Disposal Considerations

Disposal Methods and Containers:

Must not be disposed together with household garbage. Do not allow product to reach sewage system. 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

UN Number
ADG, IMDG, IATA

UN3077

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 6)

Proper Shipping Name ADG, IMDG, IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Dangerous Goods Class ADG Class: Subsidiary Risk:	9 Miscellaneous dangerous substances and articles.
Packing Group: ADG, IMDG, IATA	III
Marine pollutant:	
EMS Number:	F-A,S-F
Hazchem Code:	2Z
Special Provisions:	274, 331, 335, 375, AU01
Transport/Additional information:	Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01)
Limited Quantities:	5 kg
Packagings & IBCs - Packing Instruction:	P002, IBC08, LP02
Packagings & IBCs - Special Packing Provisions:	PP12, B3
Portable Tanks & Bulk Containers - Instructions:	T1, BK2, BK3
Portable Tanks & Bulk Containers - Special Provisions:	TP33

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All ingredients are listed.

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

Not a scheduled poison.

16 Other Information

Date of Preparation or Last Revision: 21.07.2021**Prepared by:** MSDS.COM.AU Pty Ltdwww.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)

Oxidising Solids 2: Oxidising solids, Hazard Category 2

Acute Toxicity (Oral) 4: Acute toxicity - oral - Category 4

Skin Corrosion/Irritation 2: Skin corrosion/irritation - Category 2

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

Serious Eye Damage/Irritation 2: Serious eye damage/eye irritation - Category 2

(Contd. on page 8)

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

Product Name: Optifert Finisher 15:0:17 Titan

(Contd. of page 7)

Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A

Toxic To Reproduction 1B: Reproductive toxicity – Category 1B

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.