

Safety Data Sheet

according to WHS Regulations

Printing date 22.07.2021

Revision: 21.07.2021

1 Identification

Product Name: Optifert Starter 12:5:14 Titan

Recommended Use of the Chemical and Restriction on Use: NPK 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).



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 Chronic 2 H411 Toxic to aquatic life with long lasting effects.

Aquatic Acute 2 H401 Toxic to aquatic life.

Signal Word Danger

Hazard Statements

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

H411 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.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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.

P391 Collect spillage.

P405 Store locked up.

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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:**

CAS: 1309-48-4	Magnesium oxide	<10%
CAS: 7446-20-0	Zinc sulfate heptahydrate	<10%
	⚠ Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	
CAS: 12179-04-3	Disodium tetraborate pentahydrate	<10%
	⚠ Toxic To Reproduction 1B, H360	

4 First Aid Measures

Inhalation: If inhaled, remove to fresh air. 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 medical attention if symptoms persist.

Ingestion:

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. 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: No adverse health effects expected.

Skin Contact: May cause mild skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Danger of methaemoglobin formation after ingestion.

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 oxides of sulphur, oxides of nitrogen, ammonia, oxides of phosphorus.

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: 2Z

Special Protective Equipment and Precautions for Fire Fighters:

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

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6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear protective equipment. Keep unprotected persons away. Spills should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

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. Retain and dispose of contaminated wash 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 or skin 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. All facility parts must be cleansed properly of product residues before maintenance or repair work.

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

8 Exposure Controls and Personal Protection

Exposure Standards:
CAS: 1309-48-4 Magnesium oxide

WES	TWA: 10 mg/m ³
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CAS: 12179-04-3 Disodium tetraborate pentahydrate

WES	TWA: 1 mg/m ³
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Engineering Controls:

Provide local and general 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.

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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
Auto-ignition Temperature:	No information available
Decomposition Temperature:	>130 °C
Explosion Limits:	
Lower:	No information available
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, oxidising agents, chlorides, nitrites, metallic powders and substances containing metals such as copper, nickel, cobalt, zinc and their alloys.

Hazardous Decomposition Products:

Oxides of sulphur, oxides of nitrogen, ammonia, oxides of phosphorus.

11 Toxicological Information

Toxicity:**LD50/LC50 Values Relevant for Classification:**

CAS: 7446-20-0 Zinc sulfate heptahydrate

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

Acute Health Effects

Inhalation: No adverse health effects expected.

Skin: May cause mild skin irritation.

Eye: Causes serious eye damage.

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Ingestion: Danger of methaemoglobin formation after ingestion.**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:** 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:**

Toxic to aquatic life with long lasting effects.

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)

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

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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 Ltd

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 - oral – Category 4

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

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

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

Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2

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

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

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"

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