

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

1 Identification

Product Name: Titan Emamectin 17 Insecticide**Other Means of Identification:** Mixture**APVMA Approval Number:** 90876**Recommended Use of the Chemical and Restriction on Use:** Agricultural insecticide**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.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition). Classified as Dangerous Goods when transported by Air or Sea. See section 14 of this document for more details.



Health hazard

STOT SE 2

H371 May cause damage to the nervous system.

STOT RE 2

H373 May cause damage to the nervous system through prolonged or repeated exposure.



Environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



Acute Toxicity (Inhalation) 4 H332 Harmful if inhaled.

Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Flammable Liquids 4 H227 Combustible liquid.

Aquatic Acute 3 H402 Harmful to aquatic life.

Signal Word Warning**Hazard Statements**

H227 Combustible liquid.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H371 May cause damage to the nervous system.

H373 May cause damage to the nervous system through prolonged or repeated exposure.

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 1)

H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P210	Keep away from flames and hot surfaces. No smoking.
P260	Do not breathe 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use CO ₂ , powder or water spray for extinction.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
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:**

CAS: 112-34-5	Diethylene glycol monobutyl ether ⚠ Eye Irrit. 2A, H319	20-25%
CAS: 128-37-0	2,6-Di-tert-butyl-4-methylphenol ⚠ Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	20-25%
CAS: 111-27-3	1-Hexanol ⚠ Acute Toxicity (Oral) 4, H302; Skin Corrosion/Irritation 2, H315; Eye Irrit. 2A, H319; Flammable Liquids 4, H227	20-25%
CAS: 155569-91-8	Emamectin benzoate ⚠ Acute Toxicity (Oral) 3, H301; Acute Toxicity (Dermal) 3, H311; Acute Toxicity (Inhalation) 3, H331; ⚠ STOT SE 1, H370; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Eye Irrit. 2A, H319	1-2%

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 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(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 irritation persists.

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. 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, lack of coordination, tremors and dilatation of the pupils.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

Medical Attention and Special Treatment:

This material is believed to enhance GABA activity in animals. It is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic mectin exposure. Toxicity can be minimized by early administration of chemical absorbents (e.g. activated charcoal).

5 Fire Fighting Measures

Suitable Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a solid water stream.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and dense, black noxious smoke.

Product is combustible. It will burn in a larger 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: •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.

Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

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. Use only non-sparking tools.

Provide adequate ventilation.

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.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 3)

Take precautionary measures against static discharge. 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 heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents and combustible materials.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 128-37-0 2,6-Di-tert-butyl-4-methylphenol**WES | TWA: 10 mg/m³**Engineering Controls:**

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Use an approved vapour respirator 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:

Protective gloves. Recommended material: nitrile rubber. 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:

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:

Form:	Liquid
Colour:	Yellowish to brown
Odour:	Sweetish, oily
Odour Threshold:	No information available
pH-Value:	5.6 (1%)
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	62 °C
Flammability:	Combustible
Auto-ignition Temperature:	280 °C
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 4)

Vapour Pressure:	No information available
Density at 20 °C:	0.8988 g/cm ³
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	No information available
Partition Coefficient (n-octanol/water):	No information available
Viscosity at 20 °C:	30.2 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: Heat, sparks, open flames and other sources of ignition.

Incompatible Materials: Strong oxidising agents and combustible materials.

Hazardous Decomposition Products: Oxides of oxides of carbon and dense, black noxious smoke.

11 Toxicological Information

Toxicity:

LD50/LC50 Values:

Oral	LD50	2,950 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalation	LC50/4 h	9.6 mg/l (rat)

CAS: 112-34-5 Diethylene glycol monobutyl ether

Oral	LD50	5,660 mg/kg (rat)
	LD50	4,000 mg/kg (rabbit)

CAS: 128-37-0 2,6-Di-tert-butyl-4-methylphenol

Oral	LD50	890 mg/kg (rat)
	LD50	>5,000 mg/kg (rabbit)

CAS: 111-27-3 1-Hexanol

Oral	LD50	>300-2,000 mg/kg (rat)
Dermal	LD50	>1,000-2,000 mg/kg (rabbit)

CAS: 64742-47-8 Distillates (petroleum), hydrotreated light

Oral	LD50	>5,000 mg/kg (rat)
	LD50	2,000-4,000 mg/kg (rat)
		2,000-4,000 mg/kg (rabbit)
Inhalation	LC50/4 h	5.2 mg/l (rat)

CAS: 155569-91-8 Emamectin benzoate

Oral	LD50	53 mg/kg (rat)
Dermal	LD50	500-1,000 mg/kg (rat)
Inhalation	LC50/4 h	0.663 mg/l (rat)

Acute Health Effects

Inhalation:

Harmful if inhaled. May cause respiratory irritation, lack of coordination, tremors and dilatation of the pupils.

Skin: Causes skin irritation.

Eye: Causes serious eye irritation.

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 5)

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.**Skin Corrosion / Irritation:** Causes skin irritation.**Serious Eye Damage / Irritation:** Causes serious eye irritation.**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:**

Not expected to be a hazard.

Butylated hydroxytoluene (BHT) is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:** May cause damage to the nervous system.**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

May cause damage to the nervous system through prolonged or repeated exposure.

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:**

The Australian Acceptable Daily Intake (ADI) for emamectin for a human is 0.002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.25 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2022).

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

CAS: 112-34-5 Diethylene glycol monobutyl ether

EC50	>100 mg/l (algae)
EC50/48 h	>100 mg/l (daphnia magna)
LC50/96 h	1,300 mg/l (lepomis macrochirus)
LC50	>100 mg/l (golden orfe)

CAS: 128-37-0 2,6-Di-tert-butyl-4-methylphenol

EC50/48 h	0.61 mg/l (daphnia magna)
EC50/72 h	>0.42 mg/l (scenedesmus subspicatus)
LC50/96 h	0.57 mg/l (brachydanio rerio)

CAS: 155569-91-8 Emamectin benzoate

EC50/48 h	0.001 mg/l (daphnia magna)
LC50/96 h	0.174 mg/l (rainbow trout)
	0.00004 mg/l (shrimp)

Persistence and Degradability: No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 6)

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

UN Number	
ADG	Not regulated
IMDG, IATA	UN3082
Proper Shipping Name	
ADG	Not regulated
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Emamectin benzoate, 2,6-Di-tert-butyl- 4-methylphenol), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Emamectin benzoate)
Dangerous Goods Class	
ADG Class:	Not regulated
IMDG Class:	9
Packing Group:	
ADG	Not regulated
IMDG, IATA	III
Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-F
Hazchem Code:	•3Z
Special Provisions:	274, 331, 335, 375, AU01
Transport/Additional information:	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)
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions:	PP1
Portable Tanks & Bulk Containers - Instructions:	T4
Portable Tanks & Bulk Containers - Special Provisions:	TP1, TP29

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All components are on the inventory, or in compliance with the inventory.

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

Poisons Schedule: 5

(Contd. on page 8)

Safety Data Sheet

according to WHS Regulations

Printing date 16.06.2022

Revision: 16.06.2022

Product Name: Titan Emamectin 17 Insecticide

(Contd. of page 7)

Australian Pesticides and Veterinary Medicines Authority:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA approval number 90876.

16 Other Information**Date of Preparation or Last Revision:** 16.06.2022**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)

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity (Oral) 3: Acute toxicity – Category 3

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

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

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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

Aquatic Acute 3: Hazardous to the aquatic environment, short-term (Acute). Category 3

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”

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.