

# Safety Data Sheet

according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

## 1 Identification

**Product Name:** TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE

**Other Means of Identification:** Mixture

**APVMA Approval Number:** 65890

**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.

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.



Health hazard

Carcinogenicity 2	H351 Suspected of causing cancer.
Toxic To Reproduction 1B	H360 May damage fertility or the unborn child.
STOT RE 1	H372 Causes damage to the nervous system through prolonged or repeated exposure.
Aspiration Hazard 1	H304 May be fatal if swallowed and enters airways.



Environment

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



Acute Toxicity (Oral) 4	H302 Harmful if swallowed.
Acute Toxicity (Inhalation) 4	H332 Harmful if inhaled.
Skin Sensitisation 1	H317 May cause an allergic skin reaction.
Flammable Liquids 4	H227 Combustible liquid.

**Signal Word** Danger

**Hazard Statements**

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H332 Harmful if inhaled.

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 1)

H317 May cause an allergic skin reaction.  
 H351 Suspected of causing cancer.  
 H360 May damage fertility or the unborn child.  
 H372 Causes damage to the nervous system through prolonged or repeated exposure.  
 H304 May be fatal if swallowed and enters airways.  
 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.  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P321 Specific treatment (see on this label).  
 P331 Do NOT induce vomiting.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P314 Get medical advice/attention if you feel unwell.  
 P330 Rinse mouth.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P370+P378 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 P391 Collect spillage.  
 P403 Store in a well-ventilated place.  
 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: 64742-94-5	Solvent naphtha (petroleum), heavy arom. ⚠️ Aspiration Hazard 1, H304	60-70%
CAS: 82657-04-3	Bifenthrin (ISO) ⚠️ Acute Toxicity (Oral) 2, H300; Acute Toxicity (Inhalation) 3, H331; ⚠️ Carcinogenicity 2, H351; STOT RE 1, H372; ⚠️ Aquatic Chronic 1, H410; ⚠️ Skin Sensitisation 1B, H317	5-10%
CAS: 872-50-4	N-methyl-2-pyrrolidone ⚠️ Toxic To Reproduction 1B, H360; ⚠️ Skin Corrosion/Irritation 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	1-5%

### 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 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(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.

**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 occur.

**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 medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Harmful if inhaled. May cause respiratory irritation.

Skin Contact: May cause skin irritation. May cause an allergic skin reaction.

Eye Contact: May cause eye irritation. Prolonged exposure or delayed treatment may cause permanent eye damage.

Ingestion: Harmful if swallowed, causing incoordination, tremors, salivation, vomiting, diarrhoea and irritability to sound and touch. May cause irritation, reddening and burning sensation to mouth and throat. May be fatal if swallowed and enters airways.

## 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Water fog, foam, dry chemical or carbon dioxide.

**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon, smoke and water.

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. Vapours may travel considerable distances to a source of ignition where they can ignite, flashback, or explode.

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. Wash spill area, preventing runoff from entering drains.

## 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.

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

(Contd. on page 4)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 3)

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 strong reducing acids.

### 8 Exposure Controls and Personal Protection

**Exposure Standards:****CAS: 872-50-4 N-methyl-2-pyrrolidone**

WES	STEL: 309 mg/m <sup>3</sup> , 75 ppm TWA: 103 mg/m <sup>3</sup> , 25 ppm Sk
-----	---

**Engineering Controls:** Ensure adequate ventilation of the working area.

**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:**

PVC or rubber gloves. 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:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Light brown
<b>Odour:</b>	Characteristic hydrocarbon odour
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	68 °C
<b>Flammability:</b>	Product is combustible
<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>Relative Density:</b>	0.905
<b>Vapour Density:</b>	No information available

(Contd. on page 5)

# Safety Data Sheet

according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 4)

**Evaporation Rate:** No information available  
**Solubility in Water:** Emulsifies into water  
**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:** Heat, sparks, open flames, hot surfaces and direct sunlight.

**Incompatible Materials:** Oxidising agents and strong reducing agents.

**Hazardous Decomposition Products:** Oxides of carbon, smoke and water.

## 11 Toxicological Information

### Toxicity:

#### LD50/LC50 Values:

**CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.**

Oral	LD50	5,000 mg/kg (rat)
	LD50	2,000 mg/kg (rabbit)

**CAS: 82657-04-3 Bifenthrin (ISO)**

Oral	LD50	55 mg/kg (rat)
	LD50	>2,000 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)
Inhalation	LC50/4 h	1.01 mg/l (rat)
	LC50/96 h	>2,000 mg/l (rat)

**CAS: 872-50-4 N-methyl-2-pyrrolidone**

Oral	LD50	3,914 mg/kg (rat)
	LD50	8,000 mg/kg (rabbit)

### Acute Health Effects

**Inhalation:** Harmful if inhaled. May cause respiratory irritation.

**Skin:** May cause skin irritation. May cause an allergic skin reaction.

**Eye:** May cause eye irritation. Prolonged exposure or delayed treatment may cause permanent eye damage.

### Ingestion:

Harmful if swallowed, causing incoordination, tremors, salivation, vomiting, diarrhoea and irritability to sound and touch. May cause irritation, reddening and burning sensation to mouth and throat. May be fatal if swallowed and enters airways.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.

**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:** Suspected of causing cancer.

**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.

(Contd. on page 6)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 5)

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

Causes damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.**Chronic Health Effects:**

Repeated or prolonged skin exposure may cause de-fatting of the skin, dermatitis and possible sensitisation.

**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for bifenthrin for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 1 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', 2021).

## 12 Ecological Information

**Ecotoxicity:** Bifenthrin is toxic to bees. Bifenthrin is moderately toxic to birds.**Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

**CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.**

EC50/48 h 12 mg/l (daphnia)

EC50/72 h 2.5 mg/l (skeletonema costatum)

LC50/96 h 45 mg/l (fathead minnow)

**CAS: 82657-04-3 Bifenthrin (ISO)**

EC50/48 h 0.00011 mg/l (daphnia)

LC50/96 h 0.00026 mg/l (rainbow trout)

**CAS: 872-50-4 N-methyl-2-pyrrolidone**

EC50/24 h &gt;1,000 mg/l (daphnia)

EC50/72 h &gt;500 mg/l (green algae)

LC50/96 h 1,072 mg/l (fathead minnow)

&gt;5,000 mg/l (rainbow trout)

**Persistence and Degradability:** Half-life in soil: 7 days - 8 months.**Bioaccumulative Potential:** There is some concern that bifenthrin may bioaccumulate in birds.**Mobility in Soil:**

Bifenthrin has a high affinity for soil particles and low solubility in water. Bifenthrin has low mobility in soil and there are no concerns about leaching or groundwater contamination.

**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.

(Contd. on page 7)

# Safety Data Sheet

according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 6)

## 14 Transport Information

<b>UN Number ADG, IMDG, IATA</b>	UN3082
<b>Proper Shipping Name ADG, IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bifenthrin (ISO))
<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bifenthrin (ISO)), MARINE POLLUTANT
<b>Dangerous Goods Class ADG Class:</b>	9
<b>Packing Group: ADG, IMDG, IATA</b>	III
<b>Marine pollutant:</b>	Symbol (fish and tree)
<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>Excepted quantities (EQ):</b>	E1
<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

## 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: 6

**Australian Pesticides and Veterinary Medicines Authority:**

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA number 65890.

## 16 Other Information

**Date of Preparation or Last Revision:** 16.03.2022**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

(Contd. on page 8)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.03.2022

Revision: 16.03.2022

**Product Name: TITAN BIFENTHRIN 100 INSECTICIDE / MITICIDE**

(Contd. of page 7)

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) 2: Acute toxicity – Category 2  
Acute Toxicity (Oral) 4: Acute toxicity – Category 4  
Acute Toxicity (Inhalation) 3: Acute toxicity – Category 3  
Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Skin Sensitisation 1: Skin sensitisation, Hazard Category 1  
Skin Sensitisation 1B: Skin sensitisation, Hazard Category 1B  
Carcinogenicity 2: Carcinogenicity – Category 2  
Toxic To Reproduction 1B: Reproductive toxicity – Category 1B  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
Aspiration Hazard 1: Aspiration hazard – Category 1  
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.