

## 1 Identification

**Product Name: TITAN BIFENTHRIN 250 EC INSECTICIDE**

**Other Means of Identification:** Mixture

**Recommended Use of the Chemical and Restriction on Use:** Agricultural insecticide

**Details of Manufacturer or Importer:**

Titan Ag Pty Ltd  
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).



skull and crossbones

Acute Toxicity (Oral) 2      H300 Fatal if swallowed.



health hazard

Carcinogenicity 2      H351 Suspected of causing cancer.

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 Acute 1      H400 Very toxic to aquatic life.

Aquatic Chronic 1      H410 Very toxic to aquatic life with long lasting effects.



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.

H300 Fatal if swallowed.

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

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H351 Suspected of causing cancer.

H372 Causes damage to the nervous system through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

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 flames and hot surfaces. No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands 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.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

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.

P312 Call a POISON CENTER/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

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 to extinguish: CO<sub>2</sub>, powder or water spray.

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:**

	Liquid hydrocarbon	66.6%
	☠ Aspiration Hazard 1, H304	
CAS: 82657-04-3	Bifenthrin (ISO)	25%
	☠ Acute Toxicity (Oral) 2, H300; Acute Toxicity (Inhalation) 3, H331; ☠ Carcinogenicity 2, H351; STOT RE 1, H372; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☠ Skin Sensitisation 1B, H317	

### 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. Application of vitamin E cream is effective in reducing discomfort. Seek medical attention if symptoms occur.

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**Eye Contact:**

In case of eye contact, hold eyelids open and rinse with water 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 immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Harmful if inhaled. May cause respiratory irritation, nausea, CNS depression, incoordination, impaired judgement and unconsciousness.

Skin Contact: May cause skin irritation and tingling sensation. May cause an allergic skin reaction.

Eye Contact: May cause eye irritation.

Ingestion: Fatal if swallowed. May cause nausea, vomiting, CNS depression and irritation to the 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 smoke and toxic fumes.

Combustible liquid.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

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

Mouth respiratory protective device.

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.

### 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 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, hot surfaces and direct sunlight. Keep away from strong oxidising agents.

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### 8 Exposure Controls and Personal Protection

**Exposure Standards:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

**Respiratory Protection:** Respiratory protection is not required under normal use conditions.

**Skin Protection:**

Elbow-length PVC 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>	Clear brown
<b>Odour:</b>	Characteristic
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	5 - 6 (1% solution)
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	66 °C
<b>Flammability:</b>	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 at 20 °C:</b>	0.0178 mPa (Bifenthrin)
<b>Relative Density:</b>	0.969
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Emulsifies into water.
<b>Partition Coefficient (n-octanol/water):</b>	6.6 log POW (Bifenthrin)
<b>Viscosity:</b>	No information available
<b>Solids content:</b>	0.0 %

### 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

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

**Conditions to Avoid:** Heat, sparks, open flames, hot surfaces and direct sunlight.

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**Incompatible Materials:** Strong oxidising agents.**Hazardous Decomposition Products:** Smoke and toxic fumes.

## 11 Toxicological Information

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****CAS: 82657-04-3 Bifenthrin (ISO)**Oral LD<sub>50</sub> 55 mg/kg (rat)Dermal LD<sub>50</sub> >2,000 mg/kg (rat)**Acute Health Effects****Inhalation:**

Harmful if inhaled. May cause respiratory irritation, nausea, CNS depression, incoordination, impaired judgement and unconsciousness.

**Skin:** May cause skin irritation and tingling sensation. May cause an allergic skin reaction.**Eye:** May cause eye irritation.**Ingestion:**

Fatal if swallowed. May cause nausea, vomiting, CNS depression and irritation to the 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:** 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:**

Causes damage to the nervous system 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 and cracking of the skin.**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', 2020).

## 12 Ecological Information

**Ecotoxicity:**

Bifenthrin is not dangerous to birds.

LD50 1800 mg/kg (Bobwhite quail)

Bifenthrin is dangerous to bees. Do not apply while bees are actively foraging.

LD50 (Contact) 0.01µg/bee

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<b>Aquatic toxicity:</b>	
<b>CAS: 82657-04-3 Bifenthrin (ISO)</b>	
EC <sub>50</sub> /48 h	0.00011 mg/l (daphnia)
LC <sub>50</sub> /96 h	0.00026 mg/l (rainbow trout)

**Persistence and Degradability:** No further relevant information available.**Bioaccumulative Potential:** No further relevant information available.**Mobility in Soil:** No further relevant information available.**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>	UN3352
<b>ADG, IMDG, IATA</b>	
<b>Proper Shipping Name</b>	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin (ISO)), ENVIRONMENTALLY HAZARDOUS
<b>ADG</b>	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin (ISO))
<b>IMDG, IATA</b>	
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	6.1 (T6) Toxic substances.
<b>IMDG Class:</b>	6.1 Toxic substances.
<b>Packing Group:</b>	
<b>ADG, IMDG, IATA</b>	III
<b>EMS Number:</b>	F-A,S-A
<b>Hazchem Code:</b>	2X
<b>Special Provisions:</b>	61, 223, 274
<b>Limited Quantities:</b>	5L
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P001, IBC03, LP01
<b>Portable Tanks &amp; Bulk Containers - Instructions:</b>	T7
<b>Portable Tanks &amp; Bulk Containers - Special Provisions:</b>	TP2, TP28

## 15 Regulatory Information

**Australian Inventory of Chemical Substances:** This chemical is not found in AICS.**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 6

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### 16 Other Information

**Date of Preparation or Last Revision:** 17.01.2020**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)

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: 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 (Inhalation) 3: Acute toxicity – Category 3

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

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Skin Sensitisation 1B: Skin sensitisation, Hazard Category 1B

Carcinogenicity 2: Carcinogenicity – Category 2

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

Aspiration Hazard 1: Aspiration hazard – Category 1

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 - February 2016”

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