



Safety Data Sheet

according to WHS Regulations

Printing date 12.12.2017

Revision: 12.12.2017

1 Identification

Product Name: BIFENTHRIN 100 INSECTICIDE / MITICIDE by TITAN

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.

Not 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 1A H360 May damage fertility or the unborn child.

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.



Acute Toxicity (Oral) 4 H302 Harmful if swallowed.

Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H302 Harmful if swallowed.

H360 May damage fertility or the unborn child.

H304 May be fatal if swallowed and enters airways.

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.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P330 Rinse mouth.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use to extinguish: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

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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:**

64742-94-5	Solvent naphtha (petroleum), heavy arom. ☠ Aspiration Hazard 1, H304	56%
82657-04-3	Bifenthrin (ISO) ☠ 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	10%
872-50-4	N-methyl-2-pyrrolidone ☠ Toxic To Reproduction 1B, H360D; ☠ Skin Corrosion/Irritation 2, H315; Serious Eye Damage/Irritation 2A, H319; STOT SE 3, H335; Flammable Liquids 4, H227	5%

Additional information:

Note H: The classification and label shown for this substance applies to the dangerous property(ies) indicated by the Risk Phrase(s) in combination with the category(ies) of danger shown. The manufacturers, distributors and importers of this substance shall be obliged to carry out an investigation to make themselves aware of the relevant and accessible data which exists for all other properties to classify and label the substance. The final label shall follow the requirements of section 7 of Annex VI of directive 67/548/EEC. (CAS No. 64742-94-5)

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.

Skin Contact:

In case of skin irritation, remove contaminated clothing and wash affected areas with water and soap for 10 minutes. Seek medical attention.

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 medical attention.

Symptoms Caused by Exposure:

Inhalation: Harmful if inhaled. May cause respiratory irritation.

Skin Contact: May cause mild skin irritation and skin numbness.

Eye Contact: May cause eye irritation, stinging, reddening and watering. 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.
Combustible liquid Class 1.

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Containers close to fire should be removed 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.

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. 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 original container, tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Keep away from oxidising agents and strong reducing agents.

8 Exposure Controls and Personal Protection

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

WES	STEL: 309 mg/m ³ , 75 ppm
	TWA: 103 mg/m ³ , 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

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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:	Light brown
Odour:	Characteristic hydrocarbon odour
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	68 °C
Flammability:	Combustible liquid Class 1
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density:	0.905
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.

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.

Incompatible Materials: Oxidising agents and strong reducing agents.

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

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****82657-04-3 Bifenthrin (ISO)**

Oral	LD ₅₀	54 - 70 mg/kg (rat)
Dermal	LD ₅₀	>2000 mg/kg (rabbit)

Acute Health Effects

Inhalation: Harmful if inhaled. May cause respiratory irritation.

Skin: May cause mild skin irritation and skin numbness.

Eye: May cause eye irritation, stinging, reddening and watering.

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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: Based on classification principles, the classification criteria are not met.

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

Carcinogenicity:

Suspected of causing cancer.

This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity:

May damage fertility or the unborn child.

N-Methyl-2-pyrrolidone is classified by Safe Work Australia as Toxic to Reproduction Category 2.

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 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 skin dryness and cracking.

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', 2017).

12 Ecological Information

Ecotoxicity:

Bifenthrin is toxic to bees.

Bifenthrin is moderately toxic to birds:

Aquatic toxicity:**82657-04-3 Bifenthrin (ISO)**

LC ₅₀ /96 h	0.00035 mg/L (bluegill)
	0.00015 mg/L (rainbow trout)
	0.0016 mg/L (daphnia)

Highly toxic to aquatic life with long lasting effects.

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.

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Other adverse effects: No 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 Not regulated**Proper Shipping Name** Not regulated**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated

15 Regulatory Information

Australian Inventory of Chemical Substances:

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

82657-04-3 Bifenthrin (ISO)

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

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 12.12.2017**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC₅₀: Lethal concentration, 50 percentLD₅₀: 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

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

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

Carcinogenicity 2: Carcinogenicity – Category 2

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

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 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"

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

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