

Safety Data Sheet

according to WHS Regulations

Printing date 06.12.2021

Revision: 06.12.2021

1 Identification

Product Name: TITAN ABAMECTIN 18 INSECTICIDE / MITICIDE**Other Means of Identification:** Mixture**APVMA Approval Number:** 65889**Recommended Use of the Chemical and Restriction on Use:** Agricultural miticide and 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).



Skull and crossbones

Acute Toxicity (Inhalation) 3 H331 Toxic if inhaled.



Health hazard

Toxic To Reproduction 1B H360 May damage fertility or the unborn child.

STOT RE 2 H373 May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure.



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 (Oral) 4 H302 Harmful if swallowed.

Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Signal Word Danger**Hazard Statements**

H302 Harmful if swallowed.

H331 Toxic if inhaled.

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H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

H335 May cause respiratory irritation.

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

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.

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/hearing protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep 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+P313 IF exposed or concerned: Get medical advice/attention.

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.

P391 Collect spillage.






P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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: 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	28%
CAS: 71751-41-2	Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)  Acute Toxicity (Oral) 2, H300; Acute Toxicity (Inhalation) 1, H330;  Toxic To Reproduction 2, H361; STOT RE 1, H372;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1.8%

Additional information: Aromatic hydrocarbons - No CAS # provided - 5.8%

4 First Aid Measures

General Information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

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, 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: Toxic if inhaled. May cause pupil dilation, vomiting, convulsions, tremors, coma, nervous system depression, incoordination, lethargy, respiratory failure and death. May cause respiratory irritation.

Skin Contact: Causes skin irritation. May cause itchiness and reddening.

Eye Contact: Causes serious eye irritation. May cause stinging, redness and watering.

Ingestion: Harmful if swallowed. May cause pupil dilation, vomiting, convulsions, tremors, coma, nervous system depression, incoordination, lethargy, respiratory failure and death.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine spray

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen, other nitrogen compounds, nitrogen, hydrogen cyanide and water.

Product is combustible.

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.

Prevent run-off from fire fighting measures from entering drains or water courses.

HAZCHEM code: 2X

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 self-contained breathing apparatus and full protective clothing. 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 labelled container for disposal. 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.

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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 direct sunlight, heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, acids, bases and combustible materials

8 Exposure Controls and Personal Protection

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

NES	STEL: 309 mg/m ³ , 75 ppm TWA: 103 mg/m ³ , 25 ppm Sk
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Engineering Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below the limits.

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:

Form:	Liquid
Colour:	Clear, colourless
Odour:	Characteristic
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:	~70 °C
Flammability:	Combustible
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available

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Vapour Pressure:	No information available
Relative Density:	1.01
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Soluble
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

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: Strong oxidising agents, acids, bases and combustible materials.

Hazardous Decomposition Products:

Oxides of carbon and nitrogen, other nitrogen compounds, nitrogen, hydrogen cyanide and water.

11 Toxicological Information

Toxicity:

LD50/LC50 Values:

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

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

CAS: 71751-41-2 Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)

Oral	LD50	1,230 mg/kg (rat)
	LD50	>330 mg/kg (rat)
Inhalation	LC50/4 h	>4.178 mg/l (rat)

Acute Health Effects

Inhalation:

Toxic if inhaled. May cause pupil dilation, vomiting, convulsions, tremors, coma, nervous system depression, incoordination, lethargy, respiratory failure and death. May cause respiratory irritation.

Skin: Causes skin irritation. May cause itchiness and reddening.

Eye: Causes serious eye irritation. May cause stinging, redness and watering.

Ingestion:

Harmful if swallowed. May cause pupil dilation, vomiting, convulsions, tremors, coma, nervous system depression, incoordination, lethargy, respiratory failure and death.

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: 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: May cause respiratory irritation.

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Specific Target Organ Toxicity (STOT) - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:**

Repeated or prolonged exposure may cause pupil dilation, weight loss, lethargy, tremors, dermatitis and changes in blood formation. Prolonged exposure may cause permanent eye damage.

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

The Australian Acceptable Daily Intake (ADI) for Abamectin for a human is 0.001 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.12 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:

Highly toxic to bees, and practically non-toxic to birds

CAS: 71751-41-2 Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)

LC50/24 h	0.002 µg/bee (bee)
LD50	0.009 µg/bee (bee)
LD50	>2,000 mg/kg (bobwhite quail)
LC50	3,120 ppm (bobwhite quail)

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

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

EC50/24 h	>1,000 mg/l (daphnia)
EC50/72 h	>500 mg/l (green algae)
LC50/96 h	1,072 mg/l (fathead minnow)
	>5,000 mg/l (rainbow trout)

CAS: 71751-41-2 Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)

EC50/96 h	7.3 mg/l (algae)
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Persistence and Degradability:

Easily biodegradable. Half-life range from 8 hours at soil surface to 2 months in dark aerobic environments.

Bioaccumulative Potential: No data available on finished product.**Mobility in Soil:**

Due to the product's low solubility, it has low mobility in soil, and is not expected to leach or contaminate groundwater.

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.

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14 Transport Information

UN Number ADG, IMDG, IATA	UN2902
Proper Shipping Name ADG	PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)), ENVIRONMENTALLY HAZARDOUS
IMDG	PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)), MARINE POLLUTANT
IATA	PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin (combination of avermectin B1a and avermectin B1b) (ISO))
Dangerous Goods Class ADG Class: Subsidiary Risk:	6.1
Packing Group: ADG, IMDG, IATA	III
Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-A
Hazchem Code:	2X
Special Provisions:	61, 223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP28

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 65889.

16 Other Information

Date of Preparation or Last Revision: 26.11.2021**Prepared by:****Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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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) 2: Acute toxicity – Category 2
Acute Toxicity (Oral) 4: Acute toxicity – Category 4
Acute Toxicity (Inhalation) 1: Acute toxicity – Category 1
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
Toxic To Reproduction 1B: Reproductive toxicity – Category 1B
Toxic To Reproduction 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
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 Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

Data altered compared to the previous version: Section 2: Hazardous Nature**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.