

Safety Data Sheet

according to WHS Regulations

Printing date 15.12.2022

Revision: 15.12.2022

1 Identification

Product Name: GENFARM BIFENTHRIN 250 INSECTICIDE/MITICIDE

Other Means of Identification: Mixture

APVMA Approval Number: 82898

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

Details of Manufacturer or Importer:

Nutrien Ag Solutions
Level 5, Building A
26 Talavera Road
Macquarie Park NSW 2113

Phone Number: (02) 9889 5400

Emergency telephone number: 1800 033 111

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) 3 H301 Toxic if swallowed.



Health hazard

Carcinogenicity 2 H351 Suspected of causing cancer.

Toxic To Reproduction 1B H360D May damage 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 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 Corrosion/Irritation 2 H315 Causes skin irritation.

Eye Irritation 2A H319 Causes serious eye irritation.

Skin Sensitisation 1 H317 May cause an allergic skin reaction.

Flammable Liquids 4 H227 Combustible liquid.

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Signal Word Danger**Hazard Statements**

- H227 Combustible liquid.
 H301 Toxic if swallowed.
 H332 Harmful if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 H360D May damage the unborn child.
 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 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).
 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.
 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.
 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.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P370+P378 In case of fire: Use CO₂, 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.	55%
	☠ Aspiration Hazard 1, H304	
CAS: 82657-04-3	Bifenthrin	25%
	☠ Acute Toxicity (Oral) 2, H300; Acute Toxicity (Inhalation) 3, H331; ☠ Carcinogenicity 2, H351; STOT RE 1, H372; ☠ Aquatic Acute 1, H400 (M=10000); Aquatic Chronic 1, H410 (M=100000); ☠ Skin Sensitisation 1B, H317	

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CAS: 872-50-4	N-methyl-2-pyrrolidone	10%
	⚠ Toxic To Reproduction 1B, H360D; ⚠ Skin Corrosion/Irritation 2, H315; Eye Irritation 2A, H319; STOT SE 3, H335	

4 First Aid Measures

General Information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

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. 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 medical attention if irritation persists.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: Harmful if inhaled. May cause respiratory irritation. Inhalation may cause Central Nervous System (CNS) depression, incoordination, impaired judgement and unconsciousness. May cause nausea.
Skin Contact: Causes skin irritation. May cause an allergic skin reaction. Absorption of bifenthrin may cause tingling sensations, especially in the face.
Eye Contact: Causes serious eye irritation.
Ingestion: Fatal if swallowed. May be fatal if swallowed and enters airways. May cause nausea, vomiting, CNS depression, and gastrointestinal irritation.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Water fog or fine spray, foam, dry chemical or carbon dioxide. Water fog or fine spray is preferred for large fires.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen, other nitrogen compounds, hydrogen cyanide, hydrogen fluoride, other fluorine compounds, water and smoke.
Product is combustible.

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 measures 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.

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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.

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. Contaminated work clothing must not be allowed out of the workplace. 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.

8 Exposure Controls and Personal Protection

Exposure Standards:
CAS: 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, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Respiratory protection is not required under normal use conditions.

Use an approved 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:

Impervious 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.

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9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Clear straw coloured
Odour:	Solvent odour
Odour Threshold:	No information available
pH-Value:	6.5 - 7.5 (5% in water)
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	66 °C
Flammability:	Combustible
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure at 20 °C:	0.0178 mPa (Bifenthrin)
Relative Density:	0.98 - 0.99
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Forms an emulsion in water
Partition Coefficient (n-octanol/water):	6.6 log POW (Bifenthrin)
Viscosity:	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: No further relevant information available.

Hazardous Decomposition Products:

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

11 Toxicological Information

Toxicity:**LD50/LC50 Values:****CAS: 82657-04-3 Bifenthrin**

Oral	LD50	55 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

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

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

Acute Health Effects**Inhalation:**

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

Skin:

Causes skin irritation. May cause an allergic skin reaction. Absorption of bifenthrin may cause tingling sensations, especially in the face.

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Eye: Causes serious eye irritation.**Ingestion:**

Fatal if swallowed. May be fatal if swallowed and enters airways. May cause nausea, vomiting, CNS depression, and gastrointestinal irritation.

Skin Corrosion / Irritation: Causes skin irritation.**Serious Eye Damage / Irritation:** Causes serious eye irritation.**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.

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:**

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

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Causes damage to the central 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 of the skin and dermatitis. Prolonged inhalation may lead to unconsciousness.

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', 2022).

12 Ecological Information

Ecotoxicity:**CAS: 82657-04-3 Bifenthrin**

LD50 1,800 mg/kg (bobwhite quail)

LD50 >0.01 µg/bee (bee)

Bifenthrin is nontoxic to birds but is toxic to bees.

This product should not be applied while bees are actively foraging.

Spray drift can cause damage.

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

CAS: 82657-04-3 Bifenthrin

EC50/48 h 0.00011 mg/l (daphnia magna)

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

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

EC50/24 h >1,000 mg/l (daphnia magna)

EC50/72 h >500 mg/l (green algae)

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

>5,000 mg/l (rainbow trout)

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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

UN Number	
ADG, IMDG, IATA	UN3352
Proper Shipping Name	
ADG	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin (ISO)), ENVIRONMENTALLY HAZARDOUS
IMDG	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin (ISO)), MARINE POLLUTANT
IATA	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin (ISO))
Dangerous Goods Class	
ADG Class:	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
Excepted quantities (EQ):	E1
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 approval number 82898.

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16 Other Information

Date of Preparation or Last Revision: 15.12.2022**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)

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 (Inhalation) 3: Acute toxicity – Category 3

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

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

Eye Irritation 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 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 1: Details of Manufacturer or Importer, Section 2: Hazardous Nature, Section 3: Hazardous Components

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".

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