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Infosafe No™ 3NUAM Issue Date : March 2025 ISSUED by NUFARMNZ

Product Name ATTACK®

Section 1 - Identification

ATTACK® **Product Identifier Product Code** 03305

Organophosphate Insecticide **Product Type**

Nufarm NZ **Company Name**

Central Park, Building 3, Level 4, 666 Great South Road Ellerslie Address

Auckland 1051 New Zealand

Telephone/Fax

Number

Tel: 0-9-270 4150

Emergency Phone

Number

0800 651 911

nzinfo@nufarm.com Email

Recommended uses and any restrictions on use or supply

A broad-spectrum insecticide for use on avocados, citrus, flowers and ornamentals, glasshouse tomatoes and cucurbits, grapes, persimmons, vegetable

and forage brassicas and fodder beet.

This SDS describes, to the best of our knowledge, the properties of the Other Information

concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be

much less severe.

Section 2 - Hazard(s) Identification

GHS classification of

the

Flammable liquids: Category 4 Aspiration hazard: Category 1

Skin corrosion/irritation: Category 2 substance/mixture

Eye irritation Category 2

Respiratory sensitization: Category 1 Skin sensitization: Category 1 Reproductive toxicity: Category 2

Specific target organ toxicity - repeated exposure: Category 1

Hazardous to the terrestrial environment: Hazardous to soil organisms

Hazardous to the terrestrial environment: Hazardous to terrestrial vertebrates

Hazardous to the terrestrial environment: Hazardous to terrestrial

invertebrates

Hazardous to the aquatic environment acute Category 1 Hazardous to the aquatic environment chronic Category 1

Signal Word (s) DANGER

Hazard Statement (s) H227 Combustible liquid

H303 May be harmful if swallowed

H313 May be harmful in contact with skin

 ${\tt H333}$ May be harmful if inhaled H315 Causes skin irritation H320 Causes eye irritation

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H361 Suspected of damaging fertility or the unborn child

H372 Causes damage to the nervous system through prolonged or repeated

exposure

H400/H410 Very toxic to aquatic life with long lasting effects

H423 Harmful to the soil environment H431 Very toxic to terrestrial vertebrates H441 Very toxic to terrestrial invertebrates

Exclamation mark, Health hazard, Environment

Precautionary

Pictogram (s)

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children. Statement - General

P103 Read carefully and follow all instructions.





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Precautionary Statement -Prevention

Precautionary

Statement -

Response

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. P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

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

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280(f) Wear protective gloves/protective clothing/eye protection/face

protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P370+P378 In case of fire: Use water fog, foam, carbon dioxide or dry chemical

for extinction. Do not use water in a jet.

P101 If medical advice is needed, have product container or label at hand.

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

P304+ P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel

unwell.

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

P321 Specific treatment

P332+P313 If skin irritation occurs: Get medical advice P362+P364 take of contaminated clothing and wash before reuse

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention

P304 + P341 IF INHALED: If breathing is difficult , remove to fresh air and

keep at rest in a position comfortable for breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or

doctor/physician.

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention

P321 Specific treatment

P363 Wash contaminated clothing before reuse.

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

P314 Get medical advice/attention if you feel unwell

P391 Collect spillage

Precautionary Statement – Storage P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Precautionary

P501 Dispose of contents/container to an approved landfill.

Statement - Disposal

Section 3 - Composition and Information on Ingredients

Chemical Characterization Liquid

<u>Propor</u>tion **Ingredients** Name CAS Pirimiphos-methyl 29232-93-7 475 g/L Permethrin 52645-53-1 25 g/L 0-10% Calcium dodecylbenzene Blend/mixture sulphonate Hydrocarbon Liquid 64742-94-5 30-60% Ingredients determined To volume to be non-hazardous

Section 4 - First Aid Measures

For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a **First-aid Measures** doctor immediately. Begin artificial respiration if the victim is not





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breathing. Use mouth-to-nose rather than mouth-to mouth. Obtain medical

attention.

Inhalation Remove patient to fresh air. Lay down and keep warm and rested. If breathing

is shallow or has stopped ensure airway is clear and apply resuscitation.

Seek medical assistance immediately.

Ingestion Never give anything by mouth to an unconscious person. If swallowed do NOT

induce vomiting. For advice, contact the National Poisons Centre (0800 764

766). Seek medical assistance immediately.

Skin Immediately flush body and clothes with large amounts of water. Remove

contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance. Do not scrub the skin.

Eye Flush eyes with plenty of water for 15 minutes holding eyelids open if

necessary. Seek medical assistance. Remove contact lenses, if present and

Initial Treatment: Atropine is the specific antidote. Large amounts are

easy to do.

First-aid Facilities Facilities storing or utilizing this material should be equipped with an

eyewash facility and safety shower.

required in organophosphate poisoning. An initial trial dose of atropine 2mg intravenously should be given and repeated every 15 minutes until an atropine effect is noted (dilated pupils, dry mouth, flushing of the skin). Reduce to a schedule that maintains full atropinisation for at least 24 hours. The dose

and frequency of atropine will vary from case to case.

Medical: Take blood samples for cholinesterase levels before starting

treatment. Stomach washout if organophosphate has been ingested. Pralidoxime enhances the reactivation of acetyl cholinesterase. It is most effective if

given early, but can still be started up to 48 hours after poisoning. Pralidoxime is given at a dose of 1-2mg by slow I.V. infusion at a maximum rate of 0.5gm/min. It is used as an adjunct to, not a replacement for

atropine.

Respiratory Difficulty - Carefully monitor for 24 hours.

Convulsions - Control with Diazepam (Valium) 5-10mg by slow I.V. or I.M.

repeat as necessary.

Section 5 - Firefighting Measures

Suitable Foam, carbon dioxide or dry chemical.

Extinguishing Media

Advice to Doctor

Hazards from On burning will emit toxic fumes.

Combustion Products

Full protective clothing and self-contained breathing apparatus.

Special protective equipment for fire-fighters

Specific Methods Keep up wind. Do not allow washings to reach sewage or effluent systems.

Hazchem Code 2Z

Truzenem Couc

Decomposition Temperature Information is not available.

Other Information

Location Certificate: Not applicable
Hazardous Atmosphere Zone: Not applicable

Number of Fire Extinguishers: 2 for 500L or more

Section 6 - Accidental Release Measures

Spills and Disposal Wear protective clothing. Clear area of unprotected personnel. Eliminate all

ignition sources and naked lights. Use non-sparking utensils. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Prevent material from coming into contact with Class 1, 2, 3.2, 4 or 5 substances.

Wash area with water and detergent and absorb with inert material. Dispose

of waste safely in an approved landfill.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.





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Environmental **Precautions**

Prevent from entering drains, waterways or sewers.

Section 7 - Handling and Storage

Precautions for Safe Handling

Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

The person mixing or applying ATTACK must be a 'Qualified Contractor' or 'Qualified Loader'. For more information refer to the Hazardous Substances Property Controls Notice 2017. It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017.

Avoid skin and eye contact and inhalation of spray mist.

CERTIFIED HANDLER: Is not required.

TRACKING: Is not required.

RECORD KEEPING: Records of use as described in the NZS 8409 Management of

Agrichemicals must be kept.

This product must not be applied onto or into water.

Conditions for safe storage, including any incompatibilities

Store in original container tightly closed and in a locked, dry, cool area away from sources of ignition and foodstuffs. Storage must be in accordance Do not store with HSNO Class 1, with NZS 8409 Management of Agrichemicals.

2, 3.2, 4 or 5 substances.

Stores containing 100L of ATTACK require secondary containment and are subject to signage, and more than 100L require emergency response plans. Stores exceeding 500 litres of this substance must have at least 2 fire Do not store near heat or flame. extinguishers.

Other Information

Always read the label and any attached leaflet before use.

Aggregate Storage Volume Thresholds:

When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

Section 8 - Exposure Controls and Personal Protection

Exposure Controls/Personal **Protection**

Restricted Entry Interval (REI):

- Citrus 2 days
- Vegetable brassicas 14 days
- Flowers 16 days
- Grapes 25 days
- Tomatoes, cucurbits 48 hrs
- Persimmons 16 days
- Kiwifruit 10 days
- All other crops until dry

The person in charge is responsible for making sure no person enters the application area before the end of the REI. If entering an application area during the REI, ensure appropriate Personal Protective Equipment (PPE) is worn.

For indoor areas, if tasks relating to the ventilation of the building or building structure are necessary before the REI, a person may enter if the Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE) required for application is worn.

Occupational Exposure Limits (OEL)

No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product.

Appropriate Engineering Controls

Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment

When opening the container, preparing spray and using the prepared spray wear full protective clothing such as a PVC spray suit or leggings, elbow length PVC gloves, chemical resistant boots with socks, eye protection, waterproof headgear and a NIOSH approved respirator with combination filter for vapour/particles.





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Hygiene Measures Do not eat, drink or smoke while using.

Remove protective clothing and wash hands and face thoroughly before meals

and after work. Wash protective clothing daily after work.

Section 9 - Physical and Chemical Properties

Form Liquid

Appearance Amber liquid

Odour Information is not available.

Decomposition Information is not available.

Temperature

Melting Point Pirimiphos-methyl active ingredient = 20.8°C (tech.)

Permethrin active ingredient = 34-35°C; cis-isomers 63-65°C; trans-isomers

44-47 $^{\circ}\text{C}$.

Solubility in Water Disperses in water.

Specific Gravity 1.08 pH 5.8

Vapour Pressure 2mPa(20°C) for pirimiphos methyl

2.9 x 10-3 mPa (25°C) (cis-isomer) for permethrin 9.2 x 10-4 Pa (25°C) (trans-isomer) for permethrin

Vapour Density

(Air=1)

Information is not available.

Odour Threshold Information is not available.

Partition Coefficient: Kow logP= 4.2 (20°C, unionised) for Pirimiphos methyl.

n-octanol/water Kow logP= 6.1(20°C) for Permethrin.

Flash Point 70 °C

Flammability Combustible liquid.

Auto-ignition Information is not available.

Temperature

Flammable Limits - Information is not available.

Lower

Flammable Limits - Information is not available.

Upper

ner

Initial Boiling Point and Boiling Range

Permethrin active ingredient = 200°C/0.1mmHg; >290°C/760mmHg.

Kinematic Viscosity Information is not available.

Particle Information is not available.

Characteristics

Relative Density Pirimiphos-methyl active ingredient = S.g./density 1.17 (20°C); 1.157 (30°C)

Permethrin active ingredient = S.g./density 1.29 (20°C)

Other Information (EC) Emulsifiable concentrate

Section 10 - Stability and Reactivity

Chemical Stability Stable under normal conditions of handling and storage.

Conditions to Avoid Avoid strong acid or alkali.

Avoid stilling actually alka

Slightly corrosive to tin plate and mild steel.

Avoid all ignition sources.

All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in

and near the work area.

Do NOT smoke. Vapour may travel a considerable distance to source of ignition

and flash back.

Incompatible Avoid contact with strongly alkaline materials such as Bordeaux miture and

Materials lime sulphur.





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Hazardous **Polymerization** Hazardous polymerisation will not occur.

Section 11 - Toxicological Information

Pirimiphos-methyl active ingredient = LD50 (rat) = 1414 mg/kg, (mice) = **Acute Toxicity - Oral**

1,180mg/kg.

Permethrin active ingredient = LD50 values for a cis/trans ratio of c.40:60 are 430-4000mg/kg(rats), 540-2690mg/kg(mice); with a 20:80 ratio, the LD50 is

c.6000 mg/kg.

Pirimiphos-methyl active ingredient = LC50 (rat) >5.04mg/L/4hr (gravimetric) Acute Toxicity -Permethrin active ingredient = LC50 (rat & mice) >685mg/m3 air/3hr; (separate Inhalation

study gives >13,800 mg/m3).

Acute Toxicity -Pirimiphos-methyl active ingredient = Acute percutaneous LD50 (rats)

>2,000 mg/kg. **Dermal**

Permethrin active ingredient = Acute percutaneous LD50 (rats) >2500mg/kg,

(rabbits) >2000mg/kg.

Symptoms of ingestion begin within 30 - 60 minutes of exposure and are at a Ingestion

maximum in 2-8 hours.

MILD - Anorexia, headache, dizziness, weakness, anxiety, sub-sternal

discomfort, tremors of the tongue and eyelids, contraction of the pupil and

impairment of visual acuity.

MODERATE - Nausea, salivation, tearing, abdominal cramps, vomiting, sweating,

slow pulse and muscular fasciculation's.

SEVERE - Diarrhoea, pinpoint and non reactive pupils, respiratory difficulty, pulmonary oedema, cyanosis, loss of sphincter control, convulsions, coma and heart block. Hyperglycaemia and possible acute pancreatitis have occurred.

(pirimiphos-methyl)

Vapour, mist and aerosols may be irritant to mucous membranes and respiratory Inhalation

tract. Inhalation of vapour, mist and aerosols may result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression which can lead to loss of co-ordination,

impaired judgement and if exposure is prolonged, unconsciousness.

Skin Pirimiphos-methyl is toxic if absorbed through the skin.

Contact with skin may result in irritation. May cause tingling, burning, itching or numbness in exposed areas which is transient, that can last up to

36 hours.

A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Can be absorbed through the skin. Effects can include

those seen if 'ingested'.

An eye irritant. May cause constriction of the pupil. Corneal opacity Eye

persistant to 14 days. Skin irritant (rabbit)

Corrosion/Irritation

Eye irritant (rabbit) Serious Eve

Damage/Irritation

Moderate skin sensitiser (permethrin) **Skin Sensitisation**

Germ Cell Information is not available.

Mutagenicity

Carcinogenicity Information is not available.

Suspected human reproductive or developmental toxicant (pirimiphos-methyl) Reproductive

Toxicity

STOT - Single Information is not available.

Exposure

STOT - Repeated Causes damage to nervous system through prolonged or repeated exposure.

Exposure

May be harmful if swallowed, inhaled or in contact with skin. **Aspiration Hazard**

Subchronic/Chronic

Pirimiphos-methyl is an organophosphorus insecticide which inhibits

interference with nerve transmission. Onset of symptoms may be delayed for **Toxicity** several hours. Studies in animals show that repeated exposures produce no





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significant effects except for cholinesterase inhibition.

Short term tests have shown that permethrin is unlikely to be genotoxic. Animal studies have shown that repeated or prolonged doses produce no

significant effects.

Other Information

The Australian Acceptable Daily Intake (ADI) for pirimiphos-methyl for a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.25 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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', December 2011). The Australian Acceptable Daily Intake (ADI) for permethrin for a human is $0.05~\rm mg/kg/day$, set for the public for daily, lifetime exposure. This is based on the NOEL of 5 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: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2011).

Section 12 - Ecological Information

Ecotoxicity Product is expected to be very toxic to aquatic organisms, LL/EL50 < 1 mg/l.

Persistence and **Degradability**

Pirimiphos-methyl is rapidly degradable in water under acid conditions and

relatively slow degradation under neutral and alkaline conditions.

Permethrin is rapidly degradable in soil and water.

Mobility Information is not available.

The substance is sparingly soluble in water and has low **Environmental Fate**

Pirimiphos-methyl: The substance is sparingly soluble in water and hambility in soil. There is evidence of hydrolysis in water and soil. This substance has low mobility in soil. It has a high

potential for bioaccumulation but is rapidly eliminated from fish (about 80% There is evidence of degradation in soil and water. in 14 days).

life in soil is less than 38 days.

Bioaccumulative

Potential

Pirimiphos-methyl and permethrin are bioaccumulative.

Log Kow 4.2 (pirimiphos-methyl) BCF rainbow trout = 560 (permethrin)

Pirimiphos-methyl active ingredient = LC50(96h) for rainbow trout 0.64mg/L, **Acute Toxicity - Fish**

(48h) for mirror carp 1.4mg/L.

Permethrin active ingredient = LC50(96h) for rainbow trout 2.5µg/L, (48h) for

rainbow trout 5.4 μ g/L, bluegill sunfish 1.8 μ g/L.

Acute Toxicity -

Daphnia

Pirimiphos-methyl active ingredient = EC50(48h) 0.21µg/L; (421d) 0.08µg/L.

Permethrin active ingredient = $LC50(48h) 0.6\mu g/L$

Acute Toxicity -

Pirimiphos-methyl active ingredient = $EC50 \ 1.0 \ mg/L$

Algae

Acute Toxicity -Other Organisms Pirimiphos-methyl active ingredient = Acute Oral LD50 for bobwhite quail 40,

Japanese quail 140, mallard ducks 1695mg/kg. For bees(oral) 0.22µg/bee;

bees (contact) 0.12µg/bee, for worms LC50 (14d) 419mg/kg

Permethrin active ingredient = Typical oral LD50(cis/trans ratio of c.40:60) for chickens >3000, mallard ducks >9800, Japanese quail 13500mg/kg. Toxic to

bees, LD50(24h) for bees(oral) 0.098µg/bee; (topical)0.029µg/bee.

Section 13 - Disposal Considerations

Product Disposal Dispose of product only by using according to the label, or at an approved

landfill. Do not burn.

Triple rinse empty container and add rinsate to the spray tank. Recycle empty **Container Disposal**

container. Otherwise crush and bury in a suitable landfill.

Section 14 - Transport Information

It is good practice not to transport agricultural chemical products with **Transport**

food, food related materials and animal feedstuffs. Information

3082 **UN Number**

Proper Shipping

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (pirimiphos-methyl,

permethrin) Name

Hazard Class





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2Z**Hazchem Code**

Packaging Method Packing Group TTT

EPG Number 47 **IERG Number**

IMO Marine

Yes. Environmentally Hazardous Substance mark required.

Pollutant

IMDG EMS F-A, S-F

Do not carry this product on a passenger service vehicle. Other Information

Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional

segregation. Refer NZS5433 sea segregation for details.

Section 15 - Regulatory Information

Registered pursuant to the ACVM Act 1997, No. P2912 National and or See www.foodsafety.govt.nz for registration conditions International

Approved pursuant to the HSNO Act 1996, Approval Code HSR100602 Regulatory

See www.epa.govt.nz for approval controls. Information

READ SAFETY DIRECTIONS BEFORE OPENING OR USING Packaging and KEEP OUT OF REACH OF CHILDREN Labelling

Section 16 - Any Other Relevant Information

Date of preparation

or last revision of SDS

February 2024.

Contact Person/Point IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE

24Hr Tollfree Emergency No: 0800 651 911

24Hr Emergency No: National Poisons Centre Phone: 0800 764 766 Update to include WorkSafe set Re-entry Intervals (REIs).

Revisions

Highlighted

...End Of MSDS...

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