

1. IDENTIFICATION

Product Identifier: **Ambush® EC Insecticide**

Other Means of Identification: Permethrin

Recommended Use of the Chemical and Restrictions on Use: **For the control of certain insect pests on crops as per Directions for Use.**

Details of Manufacturer or Importer: AgNova Technologies Pty Ltd
Unit 4, 482 Kingsford Smith Drive
Hamilton, Qld 4007 Australia
(03) 9899 8100
agnova.com.au

Emergency Phone Number: 1800 033 111 (24 hrs)
Poison Information Centre 13 11 26

2. HAZARD(S) IDENTIFICATION

Pictogram: Health Hazard, Exclamation Mark, Environment

Signal Word: 'Danger'

GHS Hazard Class and Category:

Acute Toxicity Oral – Category 4: 'Warning'

Hazard Statement: H302 Harmful if swallowed.

Aspiration Hazard – Category 1: 'Danger'

Hazard Statement: H304 May be fatal if swallowed and enters airways.

Skin Irritation – Category 2: 'Warning'

Hazard Statement: H315 Causes skin irritation.

Skin Sensitisation – Category 1: 'Warning'

Hazard Statement: H317 May cause an allergic skin reaction.



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Eye Irritation – Category 2A: ‘Warning’

Hazard Statement: H319 Causes serious eye irritation.

Acute Toxicity Inhalation – Category 4: ‘Warning’

Hazard Statement: H332 Harmful if inhaled.

Germ Cell Mutagenicity – Category 1B: ‘Danger’

Hazard Statement: H340 May cause genetic defects.

Carcinogenicity – Category 1A: ‘Danger’

Hazard Statement: H350 May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure) – Category 1: ‘Danger’

Hazard Statement: H372 Causes damage to organs through prolonged or repeated exposure.

Hazardous to the Aquatic Environment – Acute Hazard – Category 1: ‘Warning’

Hazard Statement: H400 Very toxic to aquatic life.

Hazardous to the Aquatic Environment – Long-term Hazard – Category 1: ‘Warning’

Hazard Statement: H410 Very toxic to aquatic life with long-lasting effects.

Precautionary Statements:

Prevention

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe 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.

Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P302 + P352 IF ON SKIN: Wash with plenty 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.

P321 Specific treatment (see label)

P330 Rinse mouth.

P331 Do NOT Induce vomiting.



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

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local and state regulations.

ADG

Classification: This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail. See section 14.

SUSMP

Classification: Schedule 6
(Standard for Uniform Scheduling of Medicines and Poisons)

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (w/v):
Permethrin (40:60) technical grade	52645-53-1	>50%
Hydrocarbon solvent	64742-95-6	30-60%
Emulsifier	-	1-9%

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (Phone 13 11 26), and follow the advice given. Show this Safety Data Sheet to a doctor.

Description of Necessary First Aid Measures:

Inhalation: Move person to fresh air and keep at rest until recovered. Remove any contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. If breathing laboured and patient cyanotic (blue) ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped, apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. If any signs or symptoms occur or persist, get medical attention.

Ingestion: If poisoning occurs, contact a doctor or Poisons Information Centre. DO NOT induce vomiting. Give a glass of water.

Skin contact: Will irritate the skin. Avoid contact with skin. If skin contact occurs

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remove contaminated clothing and wash affected areas thoroughly with soap and water. Wash contaminated clothing before reuse. If swelling, redness, blistering or irritation occurs, seek medical advice.

Eye contact: Will damage the eyes. Avoid contact with eyes. If product gets in eyes, wash it out immediately with copious quantities of water for 15 minutes.

First Aid Facilities: Provide washing facilities in the workplace.

Symptoms Caused by Exposure: Symptoms that may arise if the product is mishandled are nausea, vomiting, diarrhoea and in cases of severe poisoning, central nervous system depression, leading to tremors, convulsions and coma, due to the hydrocarbon content.

Medical Attention and Special Treatment: Treat symptomatically. No specific antidote known.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Equipment: Water fog (if unavailable, use fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

Specific Hazards Arising from the Chemical: In case of fire, product may release smoke or hazardous decomposition products.

Special Protective Equipment and Precautions for Firefighters: When fighting a major fire, wear SCBA and structural firefighters uniform. Do not allow fire-water to enter drains.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid contact with eyes and skin. Do NOT inhale spray mist. Shut off all possible sources of ignition. DO NOT smoke. Keep all bystanders away. Wear full length clothing and PVC gloves. Reposition any leaking containers so as to minimize further leakage.

Environmental Precautions: Avoid contamination of waterways.

Methods and Materials for Containment and Cleaning Up: Dam and absorb spill with an absorbent material (e.g. sand or soil). Shovel the absorbed material into drums. Disposal of the absorbed material will depend upon the extent of the spill

- For quantities up to 50 L of product bury in a secure landfill site
- For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number above) before attempting disposal. Contain in a secure location until disposal method is established.

Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes and skin. Do NOT inhale spray mist. When opening the container and preparing spray, wear elbow-length PVC gloves and face shield. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

Conditions for Safe Storage, including any Incompatibilities: Store in closed, original container, in a dry, cool, well ventilated area, out of direct sunlight.

Provide washing facilities in the workplace.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards: The ES-TWA is 10 mg/m³

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Biological Monitoring: No data available**Control Banding:** No data available**Engineering Controls:** No special requirements. Product is used outdoors. Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Keep containers closed when not in use. For space applications, wear elbow-length PVC gloves and face shield.**Individual Protection Measures, for example, Personal Protective Equipment (PPE):** *Skin and Eye Protection:* Elbow-length PVC gloves, face shield, goggles.
Hygiene Measures: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance:** Clear dark amber liquid
Odour: Aromatic
Vapour Pressure: Not available
Vapour Density: Not available
Boiling Point: Not available
Melting Point: Not available
Solubility: Practically insoluble
Specific Gravity: 1.05
pH: Not available
Flash Point: >61°C
Flammability (explosive) Limits: Not available
Auto-Ignition Temperature: Not available
Flammability: Combustible liquid C1**10. STABILITY AND REACTIVITY****Reactivity:** Not reactive under normal conditions.

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Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerisation is not possible.
Conditions to Avoid:	None.
Incompatible Materials:	Keep away from strong oxidising agents.
Hazardous Decomposition Products:	In case of fire, product may release smoke or hazardous decomposition products.

11. TOXICOLOGICAL INFORMATION**Technical Permethrin****Acute Toxicity:**

Oral Toxicity: Tests on rats following a single dose of the active ingredient.
LD₅₀ = 806 mg/kg (male); 814 mg/kg (female)

Dermal Toxicity: Tests on rabbits following skin contact with active ingredient.
LD₅₀ = >2000 mg/kg

Inhalation Toxicity: Tests on rats due to inhalation of active ingredient.
LC₅₀ = 2.3 mg/L/4 hours

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitisation: Moderate sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Facial skin contact may cause temporary facial skin numbness.

Germ Cell Mutagenicity: Permethrin technical has been extensively tested in mammals and in test tube systems. No evidence of any mutagenic effects has been found. The solvent used in this formulation has a hazard



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category 1B for germ cell mutagenicity. May cause genetic defects.

Carcinogenicity: Permethrin technical has been extensively tested in mammals and in test tube systems. No evidence of any carcinogenic effects has been found. Short term tests have shown that it is unlikely to be a carcinogenic hazard to man. Studies in animals have shown that repeated doses produce no significant effects. The solvent used in this formulation has a hazard category 1A for carcinogenicity. May cause cancer.

Reproductive Toxicity: Permethrin technical has been extensively tested in mammals and in test tube systems. No evidence of any neurotoxic, teratogenic or reproductive effects has been found. Studies in animals have shown that repeated doses produce no significant effects.

Specific Target Organ Toxicity (STOT) – Single Exposure: No data available.

Specific Target Organ Toxicity (STOT) – Repeated Exposure: The solvent used in this formulation has a hazard category 1 for Specific Target Organ Toxicity (Repeated Exposure). Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms and Health Effects Related to Exposure:

The aromatic petroleum hydrocarbon liquid may cause central nervous system depression and narcosis.

No case of human poisoning due to this product is on record. Symptoms that may arise if the product is mishandled are nausea, vomiting, diarrhoea and in cases of severe poisoning, central nervous system depression, leading to tremors, convulsions and coma, due to the hydrocarbon content.

12. ECOLOGICAL INFORMATION

The active ingredient Permethrin is very toxic to aquatic organisms. Contamination of waterways should be strictly avoided. DO NOT apply under weather conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent areas, particularly streams, rivers or other waterbodies.

Ecotoxicity:

Toxicity to Fish: Very Toxic.
LC₅₀ (96 h) rainbow trout = 2.5 µg/L
LC₅₀ (48 h) rainbow trout = 5.4 µg/L
LC₅₀ (48 h) bluegill sunfish = 1.8 µg/L

Toxicity to Aquatic Invertebrates: Very Toxic.
LC₅₀ (48 h) water flea (Daphnia) = 0.6 µg/L

Toxicity to Birds: Practically non-toxic
LD₅₀ chicken = >3000 mg/kg
LD₅₀ Japanese quail = >13500 mg/kg

Toxicity to Bees: Toxic.
LD₅₀ (24 h) = 0.098 µg/bee

Persistence and Degradability: There is evidence of degradation in soil and water. The half life in soil is less than 38 days.

Bioaccumulative Potential: It has a high potential for bioaccumulation but is rapidly eliminated from fish (about 80% in 14 days).

Mobility in Soil: This substance has low mobility in the soil.

Other Adverse Effects: Not available.

13. DISPOSAL CONSIDERATIONS**Disposal Containers and Methods:**

Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of



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waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. DO NOT burn empty containers or product.

14. TRANSPORT INFORMATION

Transport Classification:	Road and Rail Transport: Not dangerous goods under the ADG7 when being transported in IBCs or other receptacles <500 L (kg), Special Provision AU01). Marine and Air: Classified as Dangerous Goods for transport by sea and air according to the criteria of the UN Model Regulations for Transport of Dangerous Goods 13 th Edition
UN Number:	3082
Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains permethrin)
Transport Hazard Class:	Class 9
Packing Group Number:	III
Environmental Hazards for Transport Purposes:	Marine Pollutant
Special Precautions for User:	None
Hazchem Code:	•3Z

15. REGULATORY INFORMATION

SUSMP:	Schedule 6
APVMA:	Registered according to the Agricultural and Veterinary Chemicals Act 1994 (Cwlth). APVMA Product Number: 63975



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16. OTHER INFORMATION

Prepared in accordance with Safe Work Australia's 'Preparation of safety data sheets for hazardous chemicals; Code of Practice; July 2020'

Date of Preparation or Revision: November 2021.

Reason for Revision: 5-year review. Sections revised:
Section 1: Contact details updated
Section 2: GHS classification updated
Section 11: Clarified data pertains to technical permethrin
Section 13: Disposal advice revised
Section 14: Hazchem code corrected

Abbreviations and Acronyms: ADG7 – Australian Dangerous Goods Code for Road and Rail Transport, 7th Edition
APVMA – Australian Pesticides and Veterinary Medicines Authority
GHS – Globally Harmonized System of Classification and Labelling of Chemicals
LC – Lethal Concentration
LD – Lethal Dose
SUSMP – Standard for the Uniform Scheduling of Medicines and Poisons
TWA – Time Weighted Average

Data Sources: Manufacturer product safety data and published data

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

The opinions expressed herein are those of qualified experts with the manufacturer. Since the use of this information and of these opinions and the conditions of use of this product are not within the control of AgNova Technologies Pty Ltd, it is the user's obligation to determine the conditions of safe use of the product.

END OF SDS