

**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  
Suite 3/935 Station Street  
Box Hill North Vic 3129 Australia  
(03) 9899 8100  
[www.agnova.com.au](http://www.agnova.com.au)  
**Emergency Telephone Number:** 1800 033 111(24 hrs)  
Poison Information Centre 13 11 26**2. HAZARD(S) IDENTIFICATION**

Pictogram: Health Hazard

**GHS Hazard Class and Category:**Carcinogenicity - Category 1: 'Danger'

Hazard Statement: H350 May cause cancer.

Germ Cell Mutagenicity - Category 1: 'Danger'

Hazard Statement: H340 May cause genetic defects.

Aspiration Hazard - Category 1: 'Danger'

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

Precautionary Statements:**Prevention**

P201 Obtain special instructions before use.

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

P281 Use personal protective equipment as required.



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### Response

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

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

P331 Do NOT Induce vomiting.

### 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

## 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.



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<b>Skin contact:</b>	Will irritate the skin. Avoid contact with skin. If skin contact occurs 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.
<b>Eye contact:</b>	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.
<b>First Aid Facilities:</b>	Provide washing facilities in the workplace.
<b>Symptoms Caused by Exposure, Both Acute and Delayed:</b>	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.
<b>Medical Attention and Special Treatment:</b>	Treat symptomatically. No specific antidote known.

### 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Water fog (if unavailable, use fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).
<b>Specific Hazards Arising from the Chemical:</b>	In case of fire, product may release smoke or hazardous decomposition products.
<b>Special Protective Equipment and Precautions for Fire Fighters:</b>	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** The ES-TWA is 10 mg/m<sup>3</sup>



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**Control Measures:** Exposure Potential: Swallowing is unlikely under normal conditions of usage. Significant skin uptake does not occur. Inhalation is a possible route of exposure. This product is diluted with water prior to use as a spray. This diluted form is less toxic by all routes of exposure.  
Re-entry period: Do not enter treated areas without protective clothing for 12 hours after application.

**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.  
*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 g/cm<sup>3</sup>  
**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**

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

**11. TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity:</b>	
<b>Oral Toxicity:</b>	HARMFUL. Tests on rats indicate this product is HARMFUL following a single dose of the active ingredient. LD <sub>50</sub> = 806 mg/kg (male); 814 mg/kg (female)
<b>Dermal Toxicity:</b>	NOT HARMFUL. Tests on rabbits indicate this product is NOT HARMFUL following skin contact with active ingredient. LD <sub>50</sub> = > 2000 mg/kg
<b>Inhalation Toxicity:</b>	HARMFUL. Tests on rats indicate this product is HARMFUL due to inhalation of active ingredient. LC <sub>50</sub> = 2.3 mg/L/4 hours
<b>Skin Corrosion/Irritation:</b>	Slight irritant
<b>Serious Eye Damage/Irritation:</b>	Slight irritant
<b>Respiratory or Skin</b>	Moderate sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Facial skin contact may cause



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- Sensitisation:** 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.
- 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.
- 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:** No data available
- 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.  
LC<sub>50</sub> (96 h) rainbow trout = 2.5 µg/L  
LC<sub>50</sub> (48 h) rainbow trout = 5.4 µg/L  
LC<sub>50</sub> (48 h) bluegill sunfish = 1.8 µg/L

**Toxicity to Aquatic Invertebrates:** Very Toxic.  
LC<sub>50</sub> (48 h) water flea (Daphnia) = 0.6 µg/L

**Toxicity to Birds:** Practically non-toxic  
LD<sub>50</sub> chicken = >3000 mg/kg  
LD<sub>50</sub> Japanese quail = >13500 mg/kg

**Toxicity to Bees:** Toxic.  
LD<sub>50</sub> (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.

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

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.





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### 14. TRANSPORT INFORMATION

<b>Transport Classification:</b>	<b>Road and Rail Transport:</b> Not dangerous goods under the ADG7 when being transported in IBCs or other receptacles <500 L (kg), Special Provision AU01). <b>Marine and Air:</b> 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 <sup>th</sup> Edition
<b>UN Number:</b>	3082
<b>Proper Shipping Name or Technical Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains permethrin)
<b>Transport Hazard Class:</b>	Class 9 Not applicable
<b>Packing Group:</b>	III
<b>Environmental Hazards for Transport Purposes:</b>	Marine Pollutant
<b>Special Precautions for User:</b>	none
<b>Hazchem Code:</b>	2X

### 15. REGULATORY INFORMATION

<b>SUSMP:</b>	Schedule 6
<b>APVMA:</b>	Registered according to the Agricultural and Veterinary Chemicals Act 1994. APVMA Product Number: 63975

### 16. OTHER INFORMATION

<b>Trademark Information:</b>	Ambush® is a Registered Trademark of AgNova Technologies Pty Ltd.
<b>Abbreviations and Acronyms:</b>	ADG7 – Australian Dangerous Goods Code for Road and Rail Transport, 7 <sup>th</sup> Edition APVMA – Australian Pesticides and Veterinary Medicines Authority GHS – Globally Harmonized System of Classification and Labelling of Chemicals



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SUSMP – Standard for the Uniform Scheduling of Medicines and Poisons

TWA – Time Weighted Average

**Date of Preparation or Revision:** November 2016.

**Reason for Revision:** To comply with GHS.

**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