



MATERIAL SAFETY DATA SHEET

AMBUSH EC INSECTICIDE

Date of Issue: May 2008

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product Name: **Ambush EC Insecticide**

Other Names:

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

Supplier: AgNova Technologies Pty Ltd
ACN: 097 705 158
Address: Suite 10/857 Doncaster Road
Doncaster East Vic 3109 Australia
Telephone: (03) 9840 2333
Facsimile: (03) 9840 2555
Website: www.agnova.com.au
Contact: Managing Director
Emergency Telephone Number: 1800 033 111(24 hrs)

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD

Hazard Designation: Classified as hazardous according to the criteria of NOHSC. Not classified as Dangerous Goods for Land Transport.

Risk Phrases: R22 Harmful if swallowed.
R43 May cause sensitisation by skin contact.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R65 Also Harmful: May cause lung damage if swallowed.

Safety Phrases: S2 Keep out of reach of children.
S53 Avoid exposure-obtain special instructions before use.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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.

SUSDP Classification: Schedule 6



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3. COMPOSITION / 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 Material Safety Data Sheet to a doctor.

- 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 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.
- Medical attention:** Treat symptomatically. No specific antidote known.

5. FIRE FIGHTING MEASURES

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



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Hazards from Combustion Products: In case of fire, product may release smoke or hazardous decomposition products.

Precautions for Fire Fighters: 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:

Avoid contact with eyes and skin. Do NOT inhale spray mist. Shut off all possible sources of ignition. DO NOT smoke.

Environmental Precautions:

Avoid contamination of waterways.

Methods for Cleaning Up:

Keep all bystanders away. Wear full length clothing and PVC gloves. Reposition any leaking containers so as to minimize further leakage. 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

Handling:

Handling Precautions

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.

Other Precautions:

None.



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Storage: 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 / PERSONAL PROTECTION

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

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.

Personal Protective Equipment: *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/cm³
pH: Not available
Flash Point: >61⁰C
Flammability (explosive) Limits: Not available
Auto-Ignition Temperature: Not available
Flammability: Combustible liquid C1



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10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Hazardous Polymerisation:	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

Oral Toxicity:	HARMFUL. Tests on rats indicate this product is HARMFUL following a single dose of the active ingredient. LD ₅₀ = 806 mg/kg (male); 814 mg/kg (female)
Dermal Toxicity:	NOT HARMFUL. Tests on rabbits indicate this product is NOT HARMFUL following skin contact with active ingredient. LD ₅₀ = > 2000 mg/kg
Inhalation Toxicity:	HARMFUL. Tests on rats indicate this product is HARMFUL due to inhalation of active ingredient. LC ₅₀ = 2.3 mg/L/4 hours
Skin Irritation:	Slight irritant
Eye Irritation:	Slight irritant
Sensitisation:	Moderate sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Facial skin contact may cause temporary facial skin numbness
Mutagenicity:	Permethrin technical has been extensively tested in mammals and in test tube systems. No evidence of any carcinogenic, mutagenic, neurotoxic, teratogenic or reproductive 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.



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Significant Data with Possible Relevance to Human Health

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.

Fish Toxicity: 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

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

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

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

Environmental Fate, Persistence and Degradation: This substance has low mobility in the soil. It has a high potential for bioaccumulation but is rapidly eliminated from fish (about 80% in 14 days). There is evidence of degradation in soil and water. The half life in soil is less than 38 days.

13. DISPOSAL CONSIDERATIONS

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



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containers and product should not be burnt.

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
UN Proper Shipping Name:	Environmentally hazardous substance, Liquid, N.O.S. (contains permethrin)
Class and Subsidiary Risk:	Class 9
Packing Group:	III
Special Precautions for User:	Permethrin 50%, marine pollutant. Segregation: Not to be loaded with explosives
Hazchem Code:	2X

15. REGULATORY INFORMATION

SUSDP:	Schedule 6
APVMA:	Registered according to the Agricultural and Veterinary Chemicals Act 1988. APVMA Product Number: AMBL10810

16. OTHER INFORMATION

Trademark Information:	Ambush® is a Registered Trademark of Syngenta Group Company.
Abbreviations and Acronyms:	APVMA – Australian Pesticides and Veterinary Medicines Authority NOHSC – National Occupational Health and Safety Commission SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons
Date of Preparation or Revision:	November 2010
Data Sources:	Manufacturer product safety data and published data



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This MSDS 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 MSDS 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 MSDS