

## MATERIAL SAFETY DATA SHEET

### STATEMENT OF HAZARDOUS NATURE:

Hazardous according to the criteria of NOHSC Australia

### COMPANY DETAILS:

Syngenta Crop Protection Pty Limited  
ABN 33 002 933 717  
140-150 Bungaree Rd.,  
PENDLE HILL, NSW, 2145

Telephone No.: (02) 9688 0444  
24 Hours Emergency No.: 1 800 033 111

## IDENTIFICATION

### PRODUCT NAME: Ambush EC Insecticide

Formulation type:	Emulsifiable Concentrate	UN number:	3082
Active ingredient:	Permethrin 40:60	Dangerous goods class:	9
Product code:		Subsidiary risk:	-
Chemical type:	Pyrethroid	Hazchem code:	2X
Poisons schedule:	6	Packing group:	III
		EPG/IERG:	9C1

**USE:** Insecticide for the control of certain insect pests.

### PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Clear dark amber liquid	Flash Point:	>61°C
Odour:	aromatic	Flammability:	not available
Boiling/Melting point:	not available	Combustibility:	C1
Vapour pressure:	not available	Solubility in water:	practically insoluble
Specific gravity:	1.05 g/cm <sup>3</sup>		

### INGREDIENTS

	CAS No.	Content (%w/v)
Permethrin 40:60 (technical grade)	52645-53-1	>50%
Hydrocarbon solvent	64742-95-6	30-60
Emulsifier	-	1-9

## HEALTH HAZARD INFORMATION

### HEALTH EFFECTS

#### ACUTE TOXICITY

This product is harmful according to NOHSC Australia.

Swallowed: **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)

Dermal absorption: **NOT HARMFUL**  
Tests on rabbits indicate this product is NOT HARMFUL following skin contact with active ingredient.  
(LD<sub>50</sub> = > 2000 mg/kg)

Inhaled: **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)

#### Irritation

Eye: **SLIGHT IRRITANT**  
Skin: **SLIGHT IRRITANT**

**Sensitisation**

Skin:

**MODERATE SENSITISER**

Repeated or prolonged skin contact may lead to allergic contact dermatitis. Facial skin contact may cause temporary facial skin numbness.

**Poisoning symptoms:**

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 solvent.

**CHRONIC TOXICITY (Active Ingredient)**

**Permethrin technical** has been extensively tested in mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, neurotoxic, teratogenic or reproductive effects was obtained. 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 **aromatic petroleum hydrocarbon liquid** may cause central nervous system depression and narcosis.

**FIRST AID**

**In case of poisoning by any exposure route contact a doctor or Poisons Information Centre. Phone 13 11 26.**

- Swallowed: If poisoning occurs contact a doctor or Poisons Information Centre. DO NOT induce vomiting. Give a glass of water.
- Eye: 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.
- Skin: 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 re-use. If swelling, redness, blistering or irritation occurs seek medical advice.
- Inhaled: 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.

**ADVICE TO DOCTOR**

No specific antidote exists. Treat symptomatically.

## PRECAUTIONS FOR USE

### ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

**EXPOSURE STANDARDS**

	TWA	
	ppm	mg/m <sup>3</sup>
Permethrin	-	10

TWA = The time weighted average airborne concentrations over an eight-hour working day, for a five-day working week over an entire working life.

**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 PROTECTION**

Poisonous if swallowed. Will damage eyes and irritate the skin. 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. When using prepared spray wear elbow-length PVC gloves and face shield. If product in eyes, wash it out immediately with water. 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. Only use protective equipment bearing the mark of the Standards Association of Australia.

**FLAMMABILITY**

This product is a combustible liquid.

**SAFE HANDLING INFORMATION****STORAGE AND TRANSPORT**

Store in closed, original container in a dry cool, well-ventilated area out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

Store and transport according to the requirements for a Class 9 dangerous good and a Schedule 6 poison.

**Transport Classification – Sea (IMDG):**

<b>UN No.:</b>	3082	<b>Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
<b>Class:</b>	9		LIQUID, N.O.S. (CONTAINS PERMETHRIN)
<b>Packing Group:</b>	III	<b>Additional Information:</b>	PERMETHRIN 50%, MARINE POLLUTANT

**Segregation:**

Not to be loaded with explosives.

**SPILLS AND DISPOSAL**

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways.
- Shut off all possible sources of ignition. DO NOT smoke.

**Procedure for spill:**

- (1) Keep all bystanders away.
- (2) Wear full length clothing and PVC gloves.
- (3) Re-position any leaking containers so as to minimise further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
  - For quantities up to 50L of product bury in a secure landfill site.
  - For quantities greater than 50L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

**Dispose of empty, used containers by:**

- (a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) 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.

**FIRE/EXPLOSION HAZARD**

This product is combustible. Keep containers cool with water spray. Extinguish warehouse and factory fires using water fog (if unavailable use fine water-spray), foam, dry agent (carbon dioxide, dry chemical powder). During a fire this product may release smoke and hazardous decomposition products. When fighting a major fire wear SCBA and structural firefighters uniform. Do not allow fire-water to enter drains.

**OTHER 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.

Rainbow Trout, *Oncorhynchus mykiss*, LC<sub>50</sub> (96 h) = 2.5 µg/L; LC<sub>50</sub> (48 h) = 5.4 µg/L

Water Flea, *Daphnia magna*, LC<sub>50</sub> (48 h) = 0.6 µg/L

Bluegill Sunfish, LC<sub>50</sub> (48 h) = 1.8 µg/L

Permethrin is toxic to bees (LD<sub>50</sub> (24h) = 0.098 µg/bee) and practically non-toxic to birds (Chicken: LD<sub>50</sub> = >3000 mg/kg; Japanese Quail: LD<sub>50</sub> = >13,500 mg/kg).

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.

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

**CONTACT POINT:** Regulatory Affairs Manager - Crop Protection - (02) 9688 0444  
**24 HOURS EMERGENCY CONTACT:** 1 800 033 111

This Material Safety Data Sheet 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.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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***Acknowledgments:***

Collated by HerbiGuide. Phone 08 98444064 for more information.