



Infosafe No™ 3NUB2      Issue Date : November 2011      ISSUED by NUFARMNZ

Product Name **SUMI-ALPHA®**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** SUMI-ALPHA®  
**Product Code** 03758  
**Product Type** Insecticide  
**Company Name** Nufarm NZ  
**Address** 6 Manu Street, Otahuhu  
Auckland 2024 New Zealand  
**Emergency Tel.** 0800 651 911  
**Telephone/Fax Number** Tel: 0-9-270 4157  
Fax: 0-9-270 4159  
**Email** www.nufarm.co.nz  
**Recommended Use** A synthetic pyrethroid insecticide for controlling cutworm and other pests in maize and vegetable crops.  
**Other Information** This SDS describes, to the best of our knowledge, the properties of the 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.

## 2. HAZARDS IDENTIFICATION

**Hazard Classification** Classified as Dangerous Goods according to the LTSA New Zealand.  
**Risk Phrase(s)**  
**Other Information** 3.1D flammable liquid, 6.1D acute toxicant, 6.3B skin irritant, 6.5B sensitiser, 6.9B target organ toxicant, 9.1A aquatic toxicant, 9.3C terrestrial vertebrate toxicant, 9.4A terrestrial invertebrate toxicant, FLAMMABLE  
Warning - combustible liquid.  
TOXICITY  
Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause mild skin irritation. Facial skin contact may cause temporary facial numbness. May cause allergic skin reaction. May cause damage to the nervous system from repeated oral exposure at high doses.  
ECOTOXIC  
Very toxic to aquatic organisms with long-lasting effects.  
Harmful to terrestrial vertebrates.  
Very toxic to terrestrial invertebrates including bees.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization** Liquid  
**Ingredients**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
Esfenvalerate	66230-04-4	50 g/L
Ingredients determined to be non-hazardous	-	To volume
Hydrocarbon solvent		76%

**Substance Chemical Family** Synthetic Pyrethroid

## 4. FIRST AID MEASURES

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



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<b>Ingestion</b>	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.
<b>Skin</b>	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.
<b>Eye</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
<b>First Aid Facilities</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Advice to Doctor</b>	Treat symptomatically. If swallowed, and if more than 15 minutes from a hospital, induce vomiting, preferably using Ipecac Syrup APF. Sumi-alpha contains esfenvalerate, a synthetic pyrethroid, which following ingestion, inhalation or skin contact can be absorbed into the bloodstream causing effects such as transient skin sensations (tingling, burning, numbness). Keep under observation and treat symptomatically. If indicated, lavage with cuffed tube. The main hazard is aspiration of the solvent into the lungs resulting in chemical pneumonitis.

## 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Dry Chemical, alcohol-resistant foam, carbon dioxide, water spray, Use appropriate medium for the underlying cause of the fire.
<b>Hazards from Combustion Products</b>	Decomposition may give rise to toxic and noxious fumes. Explosive air-vapour mixtures may form.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind. Do not allow washings to reach sewage or effluent systems. Keep containers cool with water spray. Remove drums from site of fire if safe to do so, as overheating may cause drums to explode.
<b>Specific Hazards</b>	Explosive air-vapour mixture may form.
<b>Hazchem Code</b>	3Z
<b>Other Information</b>	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: 2 for 500L or more

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills &amp; Disposal</b>	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.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers.

## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor. TRACKING: Is not required RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3L or more is applied within 24 hours.
<b>Conditions for Safe Storage</b>	Keep out of reach of children. Do not store near heat or flame. Do not store with HSN0 Class 1, 2, 3.2, 4 or 5 substances. Store in original container, tightly closed, in a locked, dry, cool, well ventilated area away from foodstuffs, seeds, feed and fertiliser. Store in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100L of SUMI-ALPHA require secondary containment and are subject to signage, and more than 100L require emergency response plans.



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**Other Information** Stores exceeding 500 litres of this substance must have at least 2 fire extinguishers.  
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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

**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 safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form** Liquid

**Appearance** Clear to slightly hazy yellow liquid

**Odour** Mild aromatic odour

**Boiling Point** ~140 °C

**Solubility in Water** Forms an emulsion in water.

**Specific Gravity** ~0.907 @ 20°C

**Vapour Pressure** 0.5-0.7 kPa @ 15°C

**Vapour Density (Air=1)** 4.49kgm<sup>-3</sup> @ 15°C

**Flash Point** 69°C (pmcc)

**Auto-Ignition Temperature** 450 °C

**Explosion Limit - Upper** 7.0% (approx vol% in air)

**Explosion Limit - Lower** 0.6%

**Other Information** (EC) Emulsifiable concentrate

## 10. STABILITY AND REACTIVITY

**Chemical Stability** When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.

**Conditions to Avoid** Do not store for prolonged periods in direct sunlight. Isolate from sources of heat, naked flames or sparks.

## 11. TOXICOLOGICAL INFORMATION

**Inhalation** Inhalation of vapour may be harmful.

**Ingestion** Accidental ingestion of small amounts is likely to be harmful.

**Skin** Contact with skin is not expected to be harmful.  
may cause a transient itching and/or burning sensation on exposed human skin.

**Mutagenicity** Not mutagenic. (esfenvalerate)

**Acute Toxicity - Oral** LD50 (rat) 399 mg/kg for Sumi-Alpha

**Acute Toxicity - Dermal** LD50 (rat) >2,000 mg/kg for Sumi-Alpha

**Acute Toxicity - Inhalation** LC50 (rat) >2.6mg/L/4hr for Sumi-Alpha



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<b>Eye Irritation</b>	Irritant
<b>Skin Irritation</b>	Moderate irritant. (Rabbit)
<b>Skin Sensitisation</b>	Skin sensitizer.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for esfenvalerate for a human is 0.008 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 7.5 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: Comm. Dept. of Health and Ageing Office of Chemical Safety and Environmental Health, 'ADI List', June 2011).

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## 12. ECOLOGICAL INFORMATION

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<b>Persistence / Degradability</b>	Under field conditions, esfenvalerate is moderately persistent with a half-life ranging from about 15 days to three months depending on the soil type.
<b>Mobility</b>	Esfenvalerate and its breakdown products are relatively immobile in soil and thus pose little risk to groundwater.
<b>Bioaccumulative Potential</b>	Esfenvalerate is bioaccumulative. Fish BCF = 2850 - 3650 for esfenvalerate.
<b>Basis for Assessment</b>	Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.
<b>Acute Toxicity - Fish</b>	LC50 (96hr) rainbow trout is 4.5µg/L for Sumi-Alpha Chronic: LOEC (90d) Bluegill sunfish is 0.025µg/L for esfenvalerate
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) Daphnia magna is 3.4µg/L for Sumi-Alpha
<b>Acute Toxicity - Algae</b>	EbC50 Algae is 6.5µg/L for esfenvalerate
<b>Acute Toxicity - Other Organisms</b>	LD50 bobwhite quail = 1,312mg/kg bw LD50 mallard ducks = >2,250mg/kg bw LC50 honey bees (72hr direct contact) <0.250µg ai/bee

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## 13. DISPOSAL CONSIDERATIONS

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<b>Product Disposal</b>	Dispose of product only by using according to the label, or at an approved landfill.
<b>Container Disposal</b>	Triple rinse empty container and add rinsate to spray tank. Crush and bury in suitable landfill.

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## 14. TRANSPORT INFORMATION

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<b>Transport Information</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
<b>U.N. Number</b>	3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (esfenvalerate, 5%)
<b>DG Class</b>	9
<b>Hazchem Code</b>	3Z
<b>Packaging Method</b>	-
<b>Packing Group</b>	III
<b>EPG Number</b>	-
<b>IERG Number</b>	47
<b>IMO Marine Pollutant</b>	Yes. Environmentally Hazardous Substance mark required.
<b>IMDG EMS</b>	F-A, S-F
<b>Other Information</b>	Do not carry this product on a passenger service vehicle. 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.

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## 15. REGULATORY INFORMATION



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**National and or International Regulatory Information** Registered pursuant to the ACVM Act 1997, No. P3795  
See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions  
Approved pursuant to the HSNO Act 1996, Approval Code HSR000320  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.

**Packaging & Labelling** WARNING - combustible liquid  
HARMFUL \* ECOTOXIC - keep out of reach of children

**Hazard Rating Systems** NFPA/HMIS: 2-2-1

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## 16. OTHER INFORMATION

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**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  
Change to DG classification

**Revisions Highlighted**

**Other Information** Supersedes SDS issued May 2010  
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