

SHOGUN

ORGANICS LIMITED

D-trans Allethrin (Esbiothrin Technical Grade)

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY INFORMATION

Product Name	Esbiothrin (D-trans Allethrin Technical)
Company	Shogun Organics Ltd.
Address	A 106 Kotia Nirman, New Link Road, Andheri(w), Mumbai – 400 058 , India
Website	www.shogunorganics.com
Telephone Number	+91 22 6677 6746
Fax Number	+91 22 6677 6847
Use	Technical grade Active Ingredient for household insecticide products

SECTION 2 : HAZARDS IDENTIFICATION

Classification	Hazardous. Harmful by inhalation and if swallowed
ADG Classification	Classified as a Dangerous Good (refer to Section 14)

SECTION 3 : INGREDIENTS

Name	Esbiothrin / d-trans allethrin 75:25
IUPAC Name	(R,S)-3-allyl-2-methyl-4-oxocyclopent-2-enyl-(1R,3R)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate
Purity	93% w/w minimum
CAS Number	260359-57-5 (Also refer : 84030-86- 4)

SECTION 4: FIRST AID MEASURES

Symptoms and Effects	May cause a transient itching and/or burning sensation in exposed human skin. Typically, symptoms begin several hours after exposure, peaks within about 12 hours and resolves within about 24 hours. Extraordinary absorbed doses may rarely cause tremor, hyper-excitability, uncoordinated movements, salivation, nausea or vomiting and diarrhoea.
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First Aid	If poisoning occurs, immediately contact a doctor and follow the advice given. Show this Material Safety Data Sheet to a doctor.
General	In case of accident or if you feel unwell, seek medical advice immediately
Inhalation	<u>If inhaled</u> , remove from contaminated area to fresh air. If any signs or symptoms occur or persist, seek medical advice.
Skin	<u>If on skin</u> remove contaminated clothing and wash skin thoroughly with soap and water. Launder contaminated clothing before re-use. Seek medical advice if irritation develops.
Eye	<u>If in eyes</u> hold eyes open and flood with water for at least 15 minutes and seek medical advice.
Ingestion	<u>If swallowed</u> , do not induce vomiting. Wash mouth with water. Give water to drink. Seek medical advice.
Note to Physician	Apply basic aid and decontamination procedures. Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Flash point: 111 °C
Extinguishing Media	Dry chemical powder, carbon dioxide. For Large fires : Water spray or foam
Unsuitable Extinguishing	Water with full jet
Hazardous Decomposition / Combustion Products	This product is combustible. May emit toxic and irritating fumes under fire conditions (carbon monoxide and carbon dioxide).
Protective Equipment	Ensure respiratory equipment is available. Evacuate immediate area. Wear full protective equipment, including breathing apparatus. See Section 8.
Fire Fighting	Advise Fire Brigade of nature of hazard. Surrounding containers should be cooled using a fine water spray. All run-off must be contained.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Spills	Stop the source of the spill if it is safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. Wear personal protective equipment as specified in Section 8. Do not allow material to enter sewers or bodies of water.
Small Spills	Apply absorbent inert material such as soil,

	dry sand or vermiculite to the spill area. Sweep up material when absorption is complete and contain in a refuse vessel for disposal. If necessary, wash the spill area with an alkali detergent and water and absorb and contain as above.
Large Spills	Place leaking containers into salvage drums. Apply absorbent inert material such as soil, dry sand or vermiculite to the spill area. Form a barricade around spill and in front of drains or waterways in spill vicinity, using soil or other non reactive material. Sweep up material and contain in a refuse vessel for disposal.
Disposal	Contaminated material must be disposed of in accordance with all State and/or Local regulations.

SECTION 7: HANDLING AND STORAGE

Handling	Keep out of reach of children, unauthorised persons and animals. After handling and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. For personal protection see Section 8.
Storage Requirements	Store in the closed, original container in a dry, cool, well ventilated area, out of direct sunlight. Do not store near food, feedstuffs, fertiliser or seed. Store at ambient temperatures.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Provide adequate ventilation.
<i>Personal Protection :</i>	
Respiratory	Use only in well ventilated areas.
Hand	Wear protective gloves
Eye	Avoid contact with eyes. Eye contact can be avoided by wearing protective eyewear.
Skin and Body	Avoid contact with skin or clothing. Skin contact should be minimised by wearing protective clothing including gloves, long sleeved shirt, long pants and chemical resistant boots.
Other Information	Launder clothes before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Viscous liquid
Colour	Yellow to dark brown
Odour	Faint characteristic
Boiling point / range	170°C
Melting point / range	NA
Explosion Limits	NA
Oxidising Properties	NA
Vapour Pressure	NA
Density	1.00 – 1.02 g/mL (20°C)
Solubility in water	Insoluble
Solubility in other solvents	Soluble (in most organic solvents)
Partition coefficient n-octanol / water	Log Pow = 4.70

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable under recommended storage and handling conditions. (See Section 7)
Conditions to avoid	Avoid direct sunlight.
Materials to avoid	None known.
Hazardous Decomposition	Emits toxic fumes under fire conditions (See Section 5).

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	
Oral	Toxic: LD ₅₀ : 378 - 432 mg/kg (Rat)
Dermal	Low toxicity: LD ₅₀ : > 2000 mg/kg (Rabbit)
Inhalation	LC ₅₀ : 2.63 mg/L (Rat)

Irritation	
Skin	Slight irritant (rabbit)
Eye	Slight irritant (rabbit)
Sensitisation	Non-sensitising (guinea pig)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Fish	Highly toxic to fish.
Daphnia	Highly toxic to aquatic invertebrates.

Do not contaminate streams, rivers or waterways with the chemical or used containers.

SECTION 13: DISPOSAL CONSIDERATIONS

Product	This material must be disposed of as a hazardous waste. Disposal should be in accordance with local, national or state regulations.
Contaminated Packaging	Puncture, or shred and bury empty containers in a local authority landfill. If not 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.

SECTION 14: TRANSPORT INFORMATION

<i>Road and Rail Transport</i>	
UN Number	3352
Class	6.1
Hazchem Code	2X
Proper Shipping Name	Pyrethroid pesticide liquid, toxic
Packaging Group	III
Chemical Family	Pyrethroid
Poisons Schedule Number	6

<i>Sea and Air Transport</i>	
UN Number	3352
Class	6.1
Proper Shipping Name	Pyrethroid pesticide liquid, toxic
Packaging Group	III
Chemical Family	Pyrethroid
Poisons Schedule Number	6

SECTION 15: REGULATORY INFORMATION

Product is registered with the Central Insecticide Board Registration Committee, Ministry of Agriculture , Government of India.

SECTION 16: OTHER INFORMATION

Date	22 June 2011
Abbreviations	NA – Not Applicable / Not Available

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