



H.O. : 101 / 102, Kanchanganga, Factory Lane, Borivli (West), Mumbai - 400 092, INDIA.

Tel. : 91-22-2898 2133 / 44, 2898 7912 / 14, 2898 4439 / Fax : 91-22-2899 3948 Website : www.heranba.com

Marketing Office : 201/202, Dwarkesh, Above Tribhuvandas Bhimji Jhaveri, L. T. Road, Borivli (W), Mumbai - 400 092. INDIA.

Tel. : 91-22-2833 8443 / 44 / Fax : 91-22-2833 8445 / e-mail : heranba@vsnl.com

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE:

Product name: DELTAMETHRIN 2.5% SC

Chemical group Synthetic pyrethroid

Use: Insecticide.

Formulation Suspension Concentrate (SC)

Supplier: Heranba Industries Limited

Address: 101/102, Kanchanganga, Factory Lane, Borivli (W), Mumbai - 400 092, INDIA.

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2. COMPOSITION/INFORMATION ON INGREDIENTS

	Concentration (%)
Deltamethrin	2.5
Other ingredients	Q.S.

3. EXPOSURE CONTROL

Engineering controls: No special ventilation is required, as this product is not volatile. Control process conditions to avoid contact. Use local exhaust ventilation while spraying, if possible.

4. PERSONAL PROTECTION

Eyes: Wear face shield.

Clothing: When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat; Gloves: Elbow-length PVC gloves; Respiratory: Avoid inhaling spray mist; Do not eat, drink or smoke until after washing. Wash thoroughly after handling. After each day's use wash gloves, face shield and contaminated clothing.

5. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off white to white coloured liquid

pH: 4.5-7.5

Suspensibility: 92.18%

6. FIRE AND EXPLOSION HAZARD

Flash point: Not applicable

Non combustible. Not considered to be a significant fire risk, Expansion or decomposition on heating may lead to violent rupture of containers, Decomposes on heating and may produce toxic/ irritating fumes, May emit acrid smoke, May emit poisonous fumes, May emit corrosive fumes.

Extinguishing Media: There is no restriction on the type of extinguisher used. Use extinguishing media suitable for surrounding area.

Fire Fighting: Wear breathing apparatus plus protective gloves for fire only; prevent, by any means available, spillage from entering drains or water courses; Use fire fighting procedures suitable for surrounding area; DO NOT approach containers



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suspected to be hot; Cool fire exposed containers with water spray from a protected location; If safe to do so, remove containers from path of fire; Equipment should be thoroughly decontaminated after use.

7. REACTIVITY

Conditions to avoid: Keep away from sources of ignition.

Incompatible materials: Strong oxidizing and reducing agents.

Hazardous decomposition products: Thermal decomposition products might include carbon monoxide and Carbon dioxide.

Hazardous Polymerization: Will not occur.

8. TOXICOLOGICAL DATA

Oral LD₅₀ rat: 500 mg/kg; Dermal LD₅₀ rat: >2000 mg/kg; Inhalation LC₅₀ rat: 1.338 mg/L; Primary skin irritation rabbit: Mild-irritant; Irritation to mucous membrane rabbit: Irritant Skin sensitization guinea pig: Non-sensitizer; ADI: 0.01 mg/kg b.w.

9. HANDLING AND STORAGE

Handling: Use only in a well-ventilated area. Avoid contact with skin and eyes. Do not spray facing the wind.

Storage: Store product in the closed, original container in a safe, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Protect from frost.

10. HEALTH HAZARD INFORMATION

Routes of exposure: Inhalation: Yes Skin: Yes, Ingestion: Yes

Light exposures may cause light burning or transient tingling sensations on more sensitive areas of the skin, dermatitis.

Signs and symptoms of exposure: Skin disorders, eye irritation, nasal and respiratory irritation, nausea, cramps, and vomiting.

11. FIRST AID MEASURES

Inhalation: Remove to fresh air, allow to rest and keep warm. Loosen clothes.

Skin contact: Remove all contaminated clothing and shoes. Wash off skin immediately with soap and plenty of water. Seek medical advice if irritation persists. Launder contaminated clothing before re-use.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes, holding eye open. Seek advice from an ophthalmologist.

Ingestion: Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice as above. Do not apply mouth to mouth resuscitation if the material has been ingested.

First Aid Facilities: Ensure eye wash and safety shower are available when handling this product.

Medical attention: Treat large intakes with gastric lavage, and charcoal administration. Use endotracheal intubation, and artificial respiration (if necessary). Monitor respiratory and cardiac functions. Observe electrocardiograph, and check for pulmonary oedema in event of inhalation. Anti-convulsant therapy with diazepam i.v. No antidote known. Treat symptoms. Recovery should be spontaneous. Elimination by: dialysis, haemo-perfusion. Contraindication – adrenergic compounds, atropine. DO NOT confuse with anticholinesterase compounds. Skin contacted by



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deltamethrin must be carefully cleaned with cleansing milk. Symptoms can be partially alleviated by the application of a vitamin E or moisturising cream or anaesthetic ointment. For eyes, instil local anaesthetic drops e.g. 1% amethocaine hydrochloride eye drops. Give analgesics as necessary.

12. STABILITY AND REACTIVITY

Stable under normal conditions. No hazards are expected if the material is handled, stored and used according to instructions and government regulations. Not known to produce hazardous reactions. Avoid oxidising agents, strong acids and alkalis.

Hazardous polymerisation: Not known to produce hazardous reactions.

Conditions to avoid: Avoid oxidising agents, strong acids and alkalis.

Incompatible materials: Avoid iron and alloys.

Hazardous decomposition products: Heating/combustion will generate oxides of carbon and nitrogen, and other irritant and toxic fumes.

13. SPILLS, LEAKAGE & DISPOSAL PROCEDURES

Minor spills: Clean up all spills immediately; Avoid breathing vapours and contact with skin and eyes; Control personal contact by using protective equipment; Contain and absorb spill with sand, earth, inert material or vermiculite; Wipe up; Place in a suitable labelled container for waste disposal.

Major spills: Moderate hazard; Clear area of personnel and move upwind; Wear breathing apparatus plus protective gloves; Prevent, by any means available, spillage from entering drains or water course; Stop leak if safe to do so; Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling; Neutralise/ decontaminate residue; Collect solid residues and seal in labelled drums for disposal; Wash area and prevent runoff into drains; After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using; If contamination of drains or waterways occurs, advise emergency services.

Disposal: 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 the purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product safely.

14. ECOLOGICAL INFORMATION

log Pow values: 5.43

Hazard to birds: acute oral LD₅₀ for mallard duck >4640 mg/kg. 8 d dietary LC₅₀ for mallard duck >8039, quail >5620 mg/kg diet.

Hazard to bees: Toxic. LD₅₀ (oral) 79 ng/bee, (contact) 51 ng/bee.

Hazard to fish: Toxic to fish under laboratory conditions; LC₅₀ (96 h) rainbow trout 0.91, bluegill sunfish 1.4 µg/L. not toxic to fish under natural conditions.



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15. TRANSPORT INFORMATION

Proper Shipping name: Pyrethroid pesticide, Liquid, Toxic

UN no.: 3352

IMDG No.: 6219

IMCO class: 6.1

EMS no.: 6.1-02

MFAG Table No.: 510

Risk phrases: R36 - Irritating to eyes.

R65 - Harmful: May cause lung damage if swallowed.

Safety phrases: in case of accident, flush eyes or skin with copious amounts of water; remove contaminated clothing and shoes; call a physician.

16. DISCLAIMER

This MSDS summarizes 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.