

MATERIAL SAFETY DATA SHEET

DELROS 25 SC (DELTAMETHRIN 2.5% SC)

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Identification of the substance	: DELROS 25 EC (Deltamethrin 2.5% SC)
Use of the substance	: Insecticide
Manufacturer/supplier	: Tagros Chemicals India Limited
Address	: Tagros Chemicals India Ltd. "Jhaver Centre", Rajah Annamalai Building, IV Floor, 72, Marshalls Road, Egmore, Chennai-600 008, India
Emergency telephone number	: +91-44-42007400
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2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW

Eyes	: May cause redness, pain and blurred vision.
Skin	: May cause transient burning sensation and itching by skin contact.
Ingestion	: Harmful if swallowed, may cause abdominal pain, convulsions, vomiting, unconsciousness, headache and nausea if ingested.
Inhalation	: May cause nose, irritation of respiratory tract, allergic reactions, respiratory distress.
Environment	: Very toxic to aquatic organisms may cause longterm adverse effects in the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	EC No.	Classification	Con.
Deltamethrin (ISO), (S)- α -cyano- 3- phenoxybenzyl 1 (1R,3R)-3- (2,2- dibromovinyl)- 2,2dimethyl- cyclo-propane carboxylate	52918-63- ¹	258-256-6	T; R23/25 N; R50-53	2.5
Others	---	---	---	97.5

4. FIRST AID MEASURES

Contact with eyes	:	Wash with copious amount of water. Avoid exposing affected eyes to bright light. Seek medical advice and show the container or this material safety data sheet.
Contact with skin	:	Remove contaminated clothing and clean the affected skin area. First, soak up any liquid remaining on the skin with readily disposable material (e.g., talcum powder or absorbent cloth or paper); wash the affected area with warm water and alkaline soap.
Ingestion	:	Keep patient calm and reassured, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not apply direct mouth to mouth respiration, use a disposable protective mouthpiece.

¹ . FIRE FIGHTING MEASURES

Inhalation : If inhaled, remove to fresh air and keep at rest. Obtain medical aid if required.

Flash point : Non-flammable

Extinguishing media : If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.

Special exposure hazards : Deltamethrin decomposes in a fire to emit toxic fumes of Br-, CN- and NOx.

Protective equipment for fire-fighting: Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Firefighting guidance : Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated, remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing as detailed in section 8.

Environmental precautions : Keep people and animals away. Prevent entry into drains, sewers and watercourses.

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

7. HANDLING AND STORAGE

Handling	: Wear chemically impervious gloves such as neoprene or nitrile. Wear safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Read and observe all precautions and instructions on the label.
Storage	: Store in original containers, upright and closed. Store in areas that are cool, dry and well ventilated. Store away from seeds, fertilizers and animal feed stuff.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit value	: ADI: 0.01 mg/kg bw (JMPR)
Engineering controls	: Mechanical ventilation should be used when handling this product in closed spaces.
Respiratory protection	: When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations.
Hand protection	: Wear chemical resistant nitrile gloves.
Eye protection	: Wear safety goggles with imperforated side shield and face shield.
Skin protection	: Avoid contact with skin. Wear apron, boots and full protective suit.
Environmental exposure controls	: Keep away from food, drink and animal feed stuff. This material and its container must be disposed off as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Color	: White to off-white
Odour	: Odourless

Molecular Weight	: 505.2 (Deltamethrin)
pH	: The pH of an aqueous dispersion shall be 4.5 to 7.5.
Persistent foam	: Maximum: 50 ml after 1 min.
Wet sieve test	: Maximum: 2% retained on a 75 µm test sieve.
Solubility in water	: Miscible
Partition coefficient	: log P K _{OW} = 5.96 (Deltamethrin)

10. STABILITY AND REACTIVITY

Stability	: Stable under recommended storage conditions.
Conditions to avoid	: Avoid excessive heat and direct sunlight
Materials to avoid	: Strong oxidizing and alkaline materials
Incompatibility	: Do not mix this product with any other spray or dip.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Rat LD₅₀ oral, Rats	: >2000 mg/kg bw
Rat LD₅₀ dermal, Rats	: >2000 mg/kg bw
Skin irritation	: Non-irritant to skin of rabbits
Eye irritation	: Non-irritant to eyes of rabbits
Skin sensitization	: Non-sensitizer to skin of Guinea pigs.
Long term studies	
Carcinogenicity	: Non-carcinogenic in rat and mice

Mutagenicity : Non-mutagenic

Reproductive toxicity : Non-reprotoxic and teratogenic

12. ECOLOGICAL INFORMATION

Ecotoxicity

Fish, *Poecilia reticulata* : LC₅₀ (96 h): 1.74 µg/l (Deltamethrin)

Daphnia magna : EC₅₀ (24 h) 4.15 µg/l (Deltamethrin)

Algae, *Chlorella vulgaris* :
EC₅₀: 22.77 µg/ml (Deltamethrin)

Bees, *Apis indica* : LD₅₀: 0.52 ppm (Deltamethrin)

Earthworms, *Lampito mauritii* LD₅₀ :> 1000 mg/kg dry soil weight (Deltamethrin)

Birds, Japanese Quails
LC₅₀: > 5000 ppm (Deltamethrin)

Mobility : Deltamethrin is classified as a low-mobility to immobile compound in soils.

Persistence and degradability :
Deltamethrin is not persistent in the environment. It is degraded by soil microorganisms and does not leave residues in the environment.

13. DISPOSAL CONSIDERATIONS

Product disposal : Do not empty into drains or waterways. Disposal of product would usually be by incineration in an appropriate licensed commercial incinerator. Advice may be obtained from local waste regulation authorities.

Container disposal : Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

14. TRANSPORT INFORMATION

UN number	: 3352
UN class	: 6.1
UN packaging group	: III
Proper Shipping Name	: PYRETHROID PESTICIDE LIQUID, TOXIC
Additional information	: Deltamethrin designated as marine pollutant.

15. REGULATORY INFORMATION

Classification	: N: Dangerous for the environment
Risk Phrases	: R23: Toxic by inhalation. R25: Toxic if swallowed. R36/37/38: Irritating to eyes, respiratory system and skin. R50/53: Very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
Safety Phrases	: S2: Keep out of the reach of children. S13: Keep away from food, drink and animal feeding stuffs. S20/21: When using does not eat, drink or smoke. S23: Do not breathe gas/fumes/vapour/spray. S24/25: Avoid contact with skin and eyes. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S29/56: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. S61: Avoid release to the environment. Refer to special instructions/safety data sheets
Reference regulation	: Regulation (EC) No 1907/2006

16. OTHER INFORMATION

MSDS first issued : 18th June 2002

MSDS data revised : 18th June 2020

Disclaimer

The Content given here in, are as per the declaration given by the manufacturer and EABCL Claims zero Responsibility.

DISCLAIMER

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with. The requirement or recommendation of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.