

### MATERIAL SAFETY DATA SHEET

PRODUCT : Deltamethrin 2.8% EC

PRODUCT DESIGNATION : Insecticide

#### **Section 1. Product & Company Identification**

Common Name : Deltamethrin 2.8% EC

Grade : Formulation

Active Ingredient : Deltamethrin

Chemical Name of Active Ingredient (IUPAC) : (S)-cyano(3-phenoxyphenyl)methyl (1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropanecarboxylate

Chemical Family of A. I. : Synthetic Pyrethroid

Molecular Formula of A. I. :  $C_{22}H_{19}BR_2NO_3$

Molecular Mass of A. I. : 505.20 g/mol

Manufacturer & Supplier : M/s United Chemicals  
**Head Office:** B-371, 1<sup>st</sup> Floor, Meera Bagh, New Delhi, India  
**Factory:** 15/1, 15/2, 15/3, industrial Area, Vidisha, M.P.

Telephone Number : +91-11-25258770

#### **Section 2. Composition / Information on Ingredients**

Identity		% W/W content
Deltamethrin, a.i.		2.80 % w/w
Emulsifier	Mixture of triglycerides and calcium salt of alkyl benzyl sulfonate	8.00 % w/w
Stabilizer	Butylated hydroxytoluene	1.00% w/w
Solvent	Naphtha	Q.S. % w/w
<b>Total</b>		<b>100.00 % w/w</b>

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### Section 3. Hazards Identification

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#### Emergency Overview

**Appearance and odour:** Light Yellowish, Mild aromatic odour.

**Warning Statements:** Keep out of reach of children

**Potential Health Effects Likely Routs of Exposure:** Skin contact, Inhalation and Ingestion.

**Inhalation :** Avoid inhalation of spray mist. Toxin may be absorbed on inhalation; Irritating to the nasal membranes and respiratory tract

**Eye Contact:** Irritating to the eyes on contact. Vapours, fumes or spray mist may cause irritation.

**Skin contact:** 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.

**Environment :** Very toxic to aquatic organisms, may cause long- term adverse effects in The aquatic environment.

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### Section 4. First Aid Measures

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#### Emergency and First Aid Procedure –

**If in Eyes:** Wash with copious amount of water. Avoid exposing affected eyes to bright light.

**If on Skin:** Remove contaminated clothing and clean the affected skin area. First, soak up any liquid remaining on the skin with readily disposable material wash the affected area with warm water and alkaline soap.

**If Inhaled:** If inhaled, remove to fresh air and keep at rest. Obtain medical aid if require.

**If Swallowed:** If the material was swallowed and signs of toxicity are severe, induce Vomiting. In the event of collapse, apply artificial respiration.

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### Section 5. Fire Fighting Measures

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**Hazardous product of Combustion:** Thermal decomposition products may emit toxic fumes of hydrogen cyanide and oxides of carbon and nitrogen.

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

**Special Protective Equipment:** Fire-fighters should wear NIOSH approved self contained breathing apparatus and full protective clothing.

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### Section 6. Accidental Release Measures

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**Personal Precaution:** 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

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

**Steps to be taken in case of a spill:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

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### Section 7. Handling & Storage

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**Precautions in 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.

**Precautions in 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.

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### Section 8. Exposure Control, Personal Protection

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**Personal Protection:** Wash hands thoroughly after handling. Do not breathe mist or vapours. Use personal protective equipment as required.

**Protective Gloves:** 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.

**Engineering Control:** Mechanical ventilation should be used when handling this product in closed spaces.

### Section 9. Physical and Chemical Properties

Appearance / state	: Liquid
Colour	: Light Yellowish
Odour	: Mild aromatic odour
Specific gravity	: 1.2 +/- 0.067 at 20°C
pH	: 4.5 – 7.5
Corrosivity	: Non-corrosive
Vapour Density	: 0.89 at 20°C
Viscosity	: 1.09 mm <sup>2</sup> /s @ 40°C
Flash Point	: 48°C
Solubility in water	: Emulsify in water
Flammable Limits	: Flammable (Auto flammable >450 °C)

### Section 10. Stability & Reactivity

**Chemical Stability:** Product is stable at normal condition.

**Materials to Avoid:** Strong oxidizing & alkaline agents

**Incompatibility:** Deltamethrin is incompatible with alloys.

**Conditions to avoid:** Avoid excessive heat and flame.

### Section 11. Toxicological Information

**Health Hazards:** Refer to section no. 3

**Acute Toxicity:** The product is toxic. It should be treated with the usual care of handling hazardous chemicals.

#### Route(s) of Entry

Ingestion,

Oral LD50: Rat >300-2000mg/kg

Skin Contact, Dermal LD50: Rat (male / female) >2000mg/kg

Inhalation, LC50: Rat (male / female) 3.5 mg/L (4 hours)

Skin Irritation, Rabbit: Slightly Irritant

Eye Irritation, Rabbit: Slightly Irritant

Skin Sensitization, Guinea Pig: Not-Sensitize

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### Section 12. Ecological Information

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Acute Oral Toxicity in Birds: In Bobwhite Quail, LC<sub>50</sub>: >5000ppm

Acute Toxicity in Fish (96 hrs LC<sub>50</sub>) : Poecilia reticulata : LC<sub>50</sub> (96h): 1.74µg/l

Acute Toxicity Honey bees: LD<sub>50</sub> : 0.52 µg/ bee

Acute Toxicity In Daphnia Magna: EC<sub>50</sub> (24 h) 4.15 µg/l

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### Section 13. Disposal Consideration

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**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.

**Containers:** 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.

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### Section 14. Transport Information

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The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Toxic substances under the applicable, ICAO/IATA, IMO, ADG.

#### IMDG Classification

Shipping name : Pyrethroid pesticide liquid toxic flammable (contains petroleum distillate and deltamethrin)

Class : 3

Packing group : III

UN number : 1993

Marine pollutant : Yes

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### Section 15. Regulatory Information

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Contains: Deltamethrin

Risk Phrases: - R21, R23 and R27/28

Safety Phrases: - S26, S28, S29, S36/37/39, S45 and S53

### Section 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

**Safety Division : UNITED CHEMICALS, SAFETY DIVISION**



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