

COCREATE GLOBAL TECHNOLOGIES PRIVATE LIMITED

U21009KA2023PTC179006

Registered address: FFK Towers, #445, 2nd Floor, 17th Cross Road, Sector 4, HSR Layout, Bangalore, Bangalore South, Karnataka - 560102, India.

Email: info@scimplify.com

Website: www.scimplify.com



SAFETY DATA SHEET

Deltamethrin Technical

1. Chemical Product and Company Information

- **Product Name:** Deltamethrin Technical
- **Chemical Name:** (S)- α -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate
- **Chemical Formula:** $C_{22}H_{19}Br_2NO_3$
- **Molecular Weight:** 505.2 g/mol
- **Chemical Family:** Pyrethroid
- **Use:** Insecticide
- **Manufacturer/Supplier:** Cocreate Global Technologies Private Limited

2. Composition / Information on Ingredients

Component	CAS Number	Concentration (%)
Deltamethrin	52918-63-5	98.0%
Inert Ingredients/Impurities	—	Q.S.

3. Hazards Identification

- **Hazard Classification:**
 - Harmful in contact with skin
 - Readily absorbed through skin
 - Toxic by inhalation and ingestion
 - May cause sensitization by inhalation or skin contact
 - Very toxic to aquatic life

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- **Target Organs:** Central Nervous System (CNS), Cardiovascular System
 - **HMIS Ratings:**
 - **Health = 1**
 - **Flammability = 0**
 - **Reactivity = 0**
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4. First Aid Measures

- **Eye Contact:** Flush with **plenty of water for 5 minutes**.
 - **Skin Contact:** Rinse with **copious amounts of water**, remove contaminated clothing.
 - **Ingestion:** **Wash out mouth**, drink water, seek medical help immediately.
 - **Inhalation:** Remove to fresh air, **provide oxygen or artificial respiration if needed**.
 - **Antidote:** Atropine IV or IM (0.4-2.0 mg/kg) every 15 minutes until atropinized.
 - **Universal Antidote:** Activated charcoal, MgO, and tannic acid in warm water.
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5. Fire-Fighting Measures

- **Flammability:** Not easily flammable
- **Flash Point:** 58°C
- **Extinguishing Media:** Water spray, CO₂, dry chemical powder, foam
- **Protective Equipment:** SCBA (Self-Contained Breathing Apparatus) and protective clothing
- **Hazardous Combustion Products:**
 - Sulfur oxides, phosphorus compounds, nitrogen oxides, hydrogen chloride, carbon monoxide, carbon dioxide

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6. Accidental Release Measures

- **Personal Safety:** Wear SCBA, protective clothing, and heavy rubber gloves.
- **Cleanup Measures:**
 - Absorb spills with diatomite or universal binders.
 - Decontaminate with alcohol-based cleaners.
 - Dispose of contaminated materials as per Section 13.

7. Handling and Storage

- **Safe Handling:** Avoid contact with skin, eyes, and clothing.
- **Storage Conditions:**
 - Store at room temperature.
 - Protect from light and heat.

8. Exposure Controls / Personal Protection

- **Breathing Protection:** NIOSH/MSHA-approved respirator.
- **Hand Protection:** Chemical-resistant rubber gloves.
- **Eye Protection:** Chemical safety goggles.

9. Physical and Chemical Properties

Property	Value
Physical State	Crystals
Appearance	Colourless
Odor	Mineral spirit-like

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Property	Value
Specific Gravity	0.55 g/cm ³ (Bulk Density, 25°C)
Vapor Pressure	1.24 × 10 ⁻⁵ mPa (25°C)
Melting Point	100-102°C
Solubility in Water	<0.2 mg/L (25°C)
pH	4 - 5

10. Stability and Reactivity

- **Chemical Stability:** Stable under normal conditions.
- **Polymerization:** Will not occur.
- **Decomposition Products:** Carbon monoxide, carbon dioxide, toxic gases.

11. Toxicological Information

Toxicity Parameter	Result
Oral LD50 (Rat)	135 mg/kg
Dermal LD50 (Rat)	>2000 mg/kg
Inhalation LC50 (Rat, 4h)	>2.2 mg/L
Eye Irritation	Mild eye damage
Skin Irritation	Non-irritant
Mutagenicity / Teratogenicity	Non-mutagenic, Non-teratogenic (Mice, Rats, Rabbits)

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12. Ecological Information

- **Highly toxic to fish, aquatic invertebrates, and bees.**
- **Fish Toxicity:**
 - **LC50 (96h) Rainbow Trout: 0.91 µg/L**
 - **LC50 (96h) Bluegill Sunfish: 1.4 µg/L**
- **Avian Toxicity:**
 - **Oral LD50 (Mallard Ducks): >4640 mg/kg**
 - **Dietary LC50 (8 days) Mallard Ducks: >8039 mg/kg**
 - **Dietary LC50 (8 days) Quail: >5620 mg/kg**
- **Bee Toxicity:**
 - **Oral LD50: 79 ng/bee**
 - **Contact LD50: 51 ng/bee**
- **Environmental Fate:**
 - **Hydrolysis Half-Life (pH 9.0): 2.28-2.70 days**
 - **Photolysis Half-Life: 64-86 days (water), 9 days (soil)**
 - **Leaching: Immobile**

13. Disposal Considerations

- **Improper disposal is a violation of law.**
 - **Do not contaminate food, feed, or water sources.**
 - **Dispose as per local, state, or federal requirements.**
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14. Transport Information

Transport Mode	NA
DOT Hazard Class	NA
Proper Shipping Name	NA
Packaging Group	NA

15. Regulatory Information

- **EU Safety Phrases:**
 - **S26:** Rinse eyes immediately if contacted.
 - **S28:** Wash skin with water after contact.
 - **S36/37/39:** Wear protective clothing, gloves, and eye protection.
 - **S53:** Avoid exposure.
 - **S45:** Seek medical attention immediately if unwell.
 - **EU Risk Phrases:**
 - **R21:** Harmful if in contact with skin.
 - **R23:** Toxic by inhalation.
 - **R27/28:** Very toxic if swallowed.
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