



Hangzhou Tianlong Biotechnology Co., Ltd.

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MATERIAL SAFETY DATA SHEET

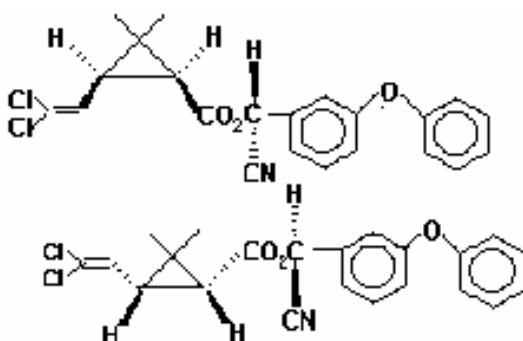
1. Chemical Product and company Identification

Product Name: Alpha-cypermethrin

Molecular Formula: C₂₂H₁₉Cl₂NO₃

Molecular Weight: 416.35

Structural Formula:



Chemical Name: (±) -cyano-(3-phenoxy) benzyl-(1R, S)-cis, trans, 2-dimethyl-3-(2, 2-dichlorovinyl) cyclopropanecarboxylate

CAS No.: 67375-30-8

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Alpha-cypermethrin	67375-30-8	95.0
Other ingredients		5.0

3. Hazards Identification

Keep out of the reach of children. When using, do not eat, drink or smoke. Wear suitable protective clothing, gloves and eye/face protection. In case of insufficient ventilation, wear suitable respiratory equipment. If swallowed, do not induce vomiting; seek medical advice immediately and show this

container or label.

4. First Aid Measures

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek immediate medical advice.

5. Fire-Fighting Measures

Specific hazards: Combustible liquid.

Fire fighting further advice: If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapor or products of combustion.

Hazchem Code: 2X

Suitable extinguishing media: If material is involved in a fire use water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6. Accidental Release Measures

Small Spills: Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapors. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labeled containers or drums for disposal.

Large Spills: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapors. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labeled containers or drums for disposal. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture. If contamination of sewers or waterways has occurred advise local emergency services.

7. Handling and Storage

Handling: Avoid skin and eye contact and inhalation of vapor, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

8. Exposure Controls/Personal Protection

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal protection equipment: Overalls, safety shoes, safety glasses, gloves, respirator.

Wear overalls, safety glasses and impervious gloves. Use with adequate ventilation.. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and Chemical Properties

Appearance: White to pale crystal with a weak aromatic odour

Solubility: Emulsifiable in water.

Melting point : 75-81 °C

Density: 1.28 (22 °C)

Vapour Pressure: 0.23×10^{-2} mPa(20°C).

Solubility: In water 0.01 mg/l (25 °C). In acetone 620, dichloromethane 550, cyclohexanone 515, ethyl acetate 440, chlorobenzene 420, acetophenone 390, o-xylene 350, hexane 7 (all in g/l, 25 °C). In maize oil 19-20, ethylene glyc;Slightly soluble in petroleum ether, hexane, methanol.

10. Stability and Reactivity

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: No information available.

Incompatible Materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen and other toxic fumes.

Hazardous reactions: No information available.

11. Toxicological Information

Acute Effects

Inhalation: Material may be irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation. May cause skin sensitisation in sensitive individuals. May cause transient tingling or numbness in exposed areas. These sensations are reversible and usually

subside within 12 hours.

Eye contact: May be an eye irritant.

Ingestion: Swallowing can result in tremors, loss of motor control and greater sensitivity to sound.

Long Term Effects: Evidence from animal tests indicate that repeated or prolonged exposure to this chemical could result in peripheral nervous system damage.

Acute toxicity / Chronic toxicity: No LD50 data available for the product. However, for the constituent:

12. Ecological Information

Very toxic to fish.

96 hr LC50 (rainbow trout): 0.0028* mg/L

48 hr EC50 (daphnia magna): 0.1-0.3 ug/L

Terrestrial toxicity:

Oral LD50 (quail): >10,000 mg/kg

Oral LD50 (mallard duck): >10,000 mg/kg

Toxic to bees.

24 hr LD50 (bee): 0.059 ug/bee

14 day LD50 (earthworm): >100 mg/kg artificial soil

No toxic effect observed under field conditions

13. Disposal Considerations

For metal drums and plastic containers: 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 this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

For refillable containers: If recycling, empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

14. Transport Information

Dangerous Goods Class: 9

Packing Group: III

UN NO.: 3077

15. Regulatory Information

Safe phrase: Keep locked up and out of reach children.

Keep away from food, drink and animal feeding stuffs.

Do not breathe vapour/spray.

Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves and eye/face protection.

Avoid release to the environment.

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 recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.