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## MATERIAL SAFETY DATA SHEET

#### Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO., LTD

ADD: NO.52 PUCHANG ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT,

WENZHOU ZHEJIANG P.R. CHINA

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### 1. Chemical Product Identification

Product Name: Beta-Cypermethrin 97% TC

Molecular Formula: C<sub>22</sub>H<sub>19</sub>Cl<sub>2</sub>NO<sub>3</sub> Molecular Weight: 416.3 g/mol

Structural Formula:

Chemical Name: (R)- $\alpha$ -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (S)- $\alpha$ -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate

Form: Solid

Color: Colorless or pale yellow

Odor: Odorless

CAS No.: 65731-84-2

## 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Beta-Cypermethrin	65731-84-2	97.0
Other ingredients		3.0



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#### 3. Hazards Identification

Inhalation: harmful. May cause eye irritating.

#### 4. First Aid Measures

Inhalation: remove the wounded to fresh air, seek medical advice.

Eye: wash out immediately with plenty of water for at least 10 minutes.

Skin: wash with plenty of water and soap.

Ingestion: drink 1-2 glasses of water induce vomiting by touching the back of the throat with a finger do not induce vomiting or give anything by mouth to an unconscious person contact a physician immediately.

### 5. Fire-Fighting Measures

Extinguishing media: dry chemical, CO<sub>2</sub>, foam.

Hazards: form carbon oxides, hydrogen cyanide, chlorine, hydrochloric acid.

Protective equipment: self-contained breathing apparatus.

#### 6. Accidental Release Measures

Spill: absorb with sand or vermiculite and place in a labelled, sealable container for subsequent disposal – disposal: see section 13. prevent contamination of water and sewer system.

### 7. Handling And Storage

Handling: ventilation when using does not eat, drink or smoke, wash hands after handling the product.

Storage: store in a frost-free place do not use or store near heat or open flame.

### 8. Exposure Controls / Personal Protection

Engineering controls: Local exhaust or general ventilation to maintain exposure below PEL.

Personal Protective Equipment (PPE)

Eye/Face Protection: Chemical safety goggles

Hand/Skin Protection: Rubber, plastic or latex gloves. Long-sleeved shirt and pants or body

coveralls.



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Respiratory Protection: Dust/Mist filtering respirator a niosh approved respirator with any

N>R>P or HE filter.

Work Practices: Wear appropriate personal protective equipment.

### 9. Physical And Chemical Properties

Form: Solid

Color: Colorless or pale yellow

Odor: Odorless

Melting point: 64-71°C

Boiling point: 253°C

Bulk density/Specific gravity: 1.34 g/ml

Vapour pressure: 0.02 m pa at 25°C

Moisture: ≤0.1%

pH: 4.0-6.0

## 10. Stability And Reactivity

Stability: Stability Stable in nertral and acidic media, hydrolyzed in strong alkaline media.

## 11. Toxicological Information

Acute oral LD<sub>50</sub> for rat: 93.0 a.i.mg/kg.

Acute dermal LD<sub>50</sub> for rat: >5000 a.i.mg/kg.

Inhalation LC<sub>50</sub> (4 h) for rat: 1.06 a.i.mg/L.

Skin irritation: Mildly- irritating to skin (rabbits).

Eye irritation: Mildly-irritating to eyes (rabbits).

Skin sensitization: Not a skin sensitiser (guinea pigs).

# 12. Ecological And Ecotoxicological Information

Effect on birds: low toxicity to birds, acute LD<sub>50</sub> for Bobwhite quail >2000 a.i.mg/kg.

Effect on fish: high toxicity to fish, acute 96 hour LC<sub>50</sub> for Rainbow trout is 0.00039

a.i.mg/L.

Effect on aquatic invertebrates: high toxicity to aquatic invertebrates, acute 48 hour EC50 for

Daphnia magna is 0.00042 a.i.mg/L.



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Effect on algae: moderate toxicity to algae, acute 72 hour  $EC_{50}$  for Pseudokirchneriella subcapitata is >0.053 a.i.mg/L.

Effect on honeybees: high toxicity to honeybees, contact acute 48 hour  $LD_{50}$  is 0.014 a.i.µg/bee; Oral acute 48 hour  $LD_{50}$  is 0.05 a.i.µg/bee.

Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC<sub>50</sub> for Eisenia foetida is >150 a.i.mg/kg.

### 13. Disposal Considerations

Disposal: Incineration in accordance with local state laws and regulations.

### 14. Transport Information

Not applicable

## 15. Regulatory Information

Not applicable

#### 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.