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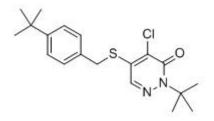
## MATERIAL SAFETY DATA SHEET

#### Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO., LTDADD: NO.52 PUCHANG ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT,WENZHOU ZHEJIANG P.R. CHINATel: +86-577-88905587Fax: +86-577-88905567Email: info@rayfull.comsales@rayfull.com

## 1. Chemical Product Identification

Product Name: Pyridaben 15% EC Molecular Formula: C<sub>19</sub>H<sub>25</sub>CIN<sub>2</sub>OS Molecular Weight: 364.93 g/mol Structural Formula:



Chemical Name: 2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2*H*)-one Form: liquid

Odour: No specific odor

## 2. Composition / Information On Ingredients

Composition	CAS No.	Content (w/v)
Pyridaben	96489-71-3	15%
Others ingredients		85%

## 3. Hazards Identification

Toxic if swallowed.

Very toxic by inhalation. Irritating to eyes and skin.



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Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 4. First Aid Measures

If in eyes: rinse immediately with plenty of water, also under the eyelids, for at least 15min. Remove contact lenses. Immediate medical attention is required.

If skin contact: take off all contaminated clothing. Wash off immediately with plenty of water for 15-20min. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

If swallowed: seek medical advice immediately and show this container or label. Do not inducr vomiting.

If inhalation: remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately.

## 5. Fire-Fighting Measures

In case of fire, Use dry chemical, foam or  $CO_2$  extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use od contaminated building, area, and equipment until decontaminated, Water runoff can cause environment damage. If water is used to fight fire, dike and collect runoff.

## 6. Accidental Release Measures

Emergency procedures: Wear protective equipment to prevent skin and eyes being affected. Breathing protection is advised if contact will be prolonged.

Personal precaution: Use personal protective clothing. Handle in accordance with good industrial hygiene and safety practice.

Environmental precaution: Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material.Dispose of contaminated material as presicribed.



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#### 7. Handling and Storage

Handling

Precautions to avoid fire and explosion:

- avoid accumulation of electrostatic charges
- keep away from flames and sparks. Do not smoke.

Handle under adequate ventilation.

Storage

In original packaging under normal storage condition. Packages should not be exposed to direct sunlight and must be kept unopened and undamaged.

#### 8. Exposure Controls/personal protection

Will irritate the eyes and skin, Avoid contact with eyes, if product in eyes, wash it out immediately with plenty of water. When opening the container and preparing spray wear, cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length PVC gloves, air respirators or self-contained breathing apparatus.

#### 9. Physical and Chemical Properties

- Appearance: Stable homogeneous liquid without visible suspended matter or sediment
- Odor: No specific odor
- Acidity,(as H<sub>2</sub>SO4 calculated) :  $\leq 0.3\%$
- Density: 1.03 g/cm<sup>3</sup>
- Stability of the emulsion: Qualified
- Moisture content:  $\leq 0.5\%$

#### 10. Stability and Reactivity

Stability: Stable under normal use and storage.

Substances to avoid: Pyridaben is reducing agent, avoid oxidizer.

Hazardous decomposition products: Will evolve toxic and irritant vapours, No hazardous decomposition products if stored and handled as prescribed/indicated.

Hazardous polymerization: Will not occur.

#### **11. Toxicological Information**



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Acute oral toxicity: LD<sub>50</sub> in rat: 161 a.i.mg/kg Acute dermal toxicity: LD<sub>50</sub> in rat: >2000 a.i.mg/kg Acute inhalation toxicity: LC<sub>50</sub> in rat: 0.62 a.i.mg/L Skin irritation: Non irritating (rabbit) Eye irritation: Non irritating (rabbit) Skin sensitization: Not a skin sensitization (guinea pig)

#### 12. Ecological and Ecotoxicological Information

Effect on birds: Acute oral LD<sub>50</sub> for Bobwhite quail is >2250 a.i.mg/kg.

Effect on fish: Acute  $LC_{50}$  (96 h) for Rainbow trout is 0.0007 a.i.mg/l.

Effects on aquatic invertebrates: Acute EC<sub>50</sub> (48 h) for Daphnia magna is 0.001 a.i.mg/l.

Effects on algae: Acute 72 hour  $EC_{50}$  for Pseudokirchneriella subcapitata is 0.017 a.i.mg/l.

Effects on bees: Contact acute (48 h)  $LD_{50}$  is 0.024 a.i.µg/bee, Oral acute (48 h)  $LD_{50}$  is 0.535 a.i.µg/bee.

Effects on earthworms: Acute 14 day LC<sub>50</sub> is 19 a.i.mg/kg.

## 13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents. Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

Uncontaminated packaging may be treated as household waste.

#### 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



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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.