



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO., LTD.

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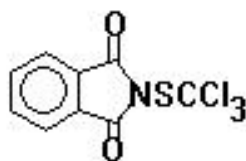
### 1. Chemical Product Identification

Product Name: Folpet

Molecular Formula: C<sub>9</sub>H<sub>4</sub>Cl<sub>3</sub>NO<sub>2</sub>S.

Molecular Weight: 296.56 g/mol

Structural Formula:



Chemical Name: N- [(Trichloromethyl) thio] phthalimide

Form: Solid

Color: Off-white.

Odor: Faint odor (characteristic).

CAS No.: 133-07-3

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Folpet	133-07-3	95.0
Other ingredients	--	5.0

### 3. Hazards Identification

Human health hazards: Irritating to eyes. May cause sensitization by skin contact.



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Environmental hazards: Toxic to aquatic organisms.

#### **4. First Aid Measures**

Inhalation: Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult: give oxygen. If not breathing: apply artificial respiration.

Get medical attention.

Ingestion: Induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

Skin contact: Remove contaminated clothing. Wash off with plenty of water and soap. Consult a doctor in the event of any complaints.

Eye contact: Wash off with plenty of water for at least 15 minutes. If pain persists, consult an eye specialist.

Notes to a physician: There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

#### **5. Fire-Fighting Measures**

Extinguishing media: In case of a small fire: foam or dry chemical, carbon dioxide. In case of a large fire: Water spray, fog or regular foam.

Hazardous decomposition products:  $\text{CSCl}_2$ , HCl,  $\text{SO}_x$ ,  $\text{NO}_x$ , CO,  $\text{CO}_2$

Fire-fighting procedures: Firefighters should wear suitable protective clothing. Self-contained breathing apparatus. Fight fires from a protected location. Dike fire control water for later disposal.

#### **6. Accidental Release Measures**

Action to take for spills: Collect spilled material with shovel, place into a clean container and cover container loosely. Avoid contact, isolate area and keep animals and unprotected persons. Confine spills.

Personal Precautions: Use appropriate protection

Environmental Precautions: Dispose of this material and its container at hazardous or special waste collection point. If the product has contaminated surface water, inform the appropriate authorities.

#### **7. Handling And Storage**



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Handling: Avoid generation of dust. Do not breathe dust. Avoid contact with skin and eyes.

Storage: Keep locked up. Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Keep container dry.

## 8. Exposure Controls/Personal Protection

Engineering measures: Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Hygiene measures: Wash hands thoroughly after handling. Wash clothing separately before re-use.

Respiratory system: During spraying wear suitable respiratory equipment.

Skin and body: Wear suitable protective clothing and chemical resistant boots.

Hands: Wear suitable gloves.

Eyes: Safety goggles or face shield.

## 9. Physical and Chemical Properties

Melting point: 117°C

Vapor pressure:  $2.10 \times 10^{-5}$  Pa @ 25°C

Density : 1.72@20°C

Partition coefficient : KowlogP=3.11

PH: 5-8

Solubility in water: Insoluble in water (0.8mg/L)

Flammability: Not flammable

Explosivity: Not explosive

## 10. Stability and Reactivity

Stability: Stable under normal dry conditions.

Conditions to avoid : Protect from (sun)light, open flame sources of heat and humidity.

Materials to avoid: Alkali materials, such as lime and Bordeaux mixture will reduce fungicidal activity.

Hazardous reactions : Hazardous polymerization will not occur.

Hazardous decomposition products:  $\text{CSCl}_2$ ,  $\text{HCl}$ ,  $\text{SOX}$ ,  $\text{NOX}$ ,  $\text{CO}$ ,  $\text{CO}_2$

## 11. Toxicological Information



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**Acute toxicity**

Acute oral LD50 for rat (male): >2000 a.i.mg/kg

Acute dermal LD50 for rat: >2000 a.i.mg/kg.

Inhalation LC50 (4 h) for rat: 1.89 a.i. mg/L.

Skin irritation: Mildly irritating (rabbit).

Eye irritation: Irritating to eyes (rabbit).

Sensitization: Guinea pig maximization test: sensitizer.

**12. Ecological And Ecotoxicological Information**

Effect on birds: low toxicity to birds, acute LD50 for Bobwhite quail is >2510 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is 0.233 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is 0.68 a.i.mg/L.

Effect on algae: low toxicity to algae, acute 72 hour EC50 for Scenedesmus acutus is > 10 a.i.mg/L.

Effect on honeybees: low toxicity to honeybees, contact acute 48 hour LD50 is >200 a.i.µg/bee, oral acute 48 hour LD50 is >236 a.i.µg/bee. Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC50 is >500 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



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### **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.