



## 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

Tel: +86-577-88905587

Fax: +86-577-88905567

Email: info@rayfull.com

sales@rayfull.com

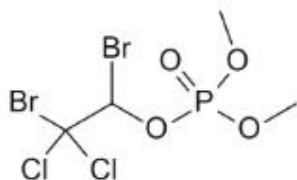
### 1. Chemical Product Identification

Product Name: Naled 90% TC

Molecular Formula: C<sub>4</sub>H<sub>7</sub>Br<sub>2</sub>Cl<sub>2</sub>O<sub>4</sub>P

Molecular Weight: 380.79 g/mol

Structural Formula:



Chemical Name: (RS)-1,2-dibromo-2,2-dichloroethyl dimethyl phosphate

Form: Liquid

Color: Light yellow to light red

Odor: Odorless

CAS No.: 300-76-5

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Naled	300-76-5	90.0
Other ingredients		10.0

### 3. Hazards Identification



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Inhalation Pupillary constriction, muscle cramp, excessive salivation. Sweating. Nausea. Vomiting. Dizziness. Convulsions. Unconsciousness.

Skin MAY BE ABSORBED! Redness. Pain. (Further see Inhalation).

Eyes Redness. Pain. Blurred vision.

Ingestion Abdominal cramps. Vomiting. Diarrhoea. (See inhalation).

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

Eyes: Immediately flush the eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. Contact a physician immediately. If there will be a delay in getting medical attention, rinse the eyes for at least another 15 minutes.

Inhalation: Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately.

Ingestion: Do not induce vomiting. If victim is conscious, administer an 8 oz. glass of water containing 2 tbsp. activated charcoal. Have person lie on their left side to slow down absorption of the ingested material. Never give anything by mouth to an unconscious person. Contact a physician immediately.

Skin: Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. Remove contaminated clothing. Do not attempt to neutralize with chemical agents. Wash clothing before reuse. Contact a physician immediately.

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

Extinguishing media

In case of a small fire: dry chemical, carbon dioxide.

In case of a large fire: Water spray, fog or regular foam.

Protection of fire-fighters: Wear suitable protective clothing. Self-contained breathing apparatus.

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

Personal precautions: Use appropriate protection (see section 8).

Environmental precautions: Dispose of this material and its container at hazardous or special waste collection point, In accordance with national and regional regulations. If the product



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has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.

Methods for cleaning up: In the event of minor spillage: Absorb in sand or other inert material. Use appropriate containment to avoid environmental contamination. In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

## **7. Handling And Storage**

Handling: Do not breathe fumes. 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 controls: A well-ventilated area is recommended for handling. Use of mechanical or local exhaust systems is recommended.

Respiratory protection: When respiratory protection is required, or concentrations may exceed the PEL, use a air-purifying respirator equipped with new organic vapor cartridges or canisters. A maximum use of eight hours is recommended. For emergency and other conditions where the exposure limit may be greatly exceeded, use an approved positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

Skin protection: Prevent skin contact. Chemical resistant gloves, body covering clothing that has long sleeves and long pants, and chemical resistant shoes or boots, are required to prevent skin contamination. Replace gloves every eight hours or sooner if exposure has been heavy. A chemical resistant apron will provide additional protection when there is a risk of spillage or splashing. Wear clean clothes daily. Wash soiled clothes separately from other laundry. Wash thoroughly after handling this product. See the label for more specific instructions.

Eye protection: Safety glasses should be worn whenever working with chemicals. Goggles or a faceshield should be used if there is a chance of mist formation or splashing.

## **9. Physical And Chemical Properties**

Appearance: Light yellow to light red liquid



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Melting point: 26-27.5°C

Moisture: ≤0.5%

Acidity (as H<sub>2</sub>SO<sub>4</sub>): ≤0.5%

## **10. Stability And Reactivity**

Stability: Stable under normal conditions.

Materials to avoid: Avoid contact with: strong acids.

Hazardous reactions: Hazardous polymerization will not occur.

## **11. Toxicological Information**

Acute oral LD<sub>50</sub> for rats is 83 a.i.mg/kg.

Acute percutaneous LD<sub>50</sub> for rats is 800 a.i.mg/kg.

Acute inhalation toxicity LC<sub>50</sub> (4 h) for rats is 0.2 a.i.mg/l.

Skin irritation: irritant to skin (rabbits).

Eye irritation: Severe irritant to eyes (rabbits).

Skin sensitization for guinea pig: Not a skin sensitiser.

## **12. Ecological And Ecotoxicological Information**

Effect on birds: high toxicity to birds, acute LD<sub>50</sub> for Mallard ducks is >52 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC<sub>50</sub> for Rainbow trout is >0.195 a.i.mg/L.

Effect on aquatic invertebrates: high toxicity to aquatic invertebrates, acute 48 hour EC<sub>50</sub> for Daphnia magna is 0.00035 a.i.mg/L.

Effect on algae: high toxicity to algae, acute 72 hour EC<sub>50</sub> for Pseudokirchneriella subcapitata is 0.00035 a.i.mg/L.

Effect on honeybees: high toxicity to honeybees, contact acute 48 hour LD<sub>50</sub> is >0.002 a.i.µg/bee.

## **13. Disposal Considerations**

Disposal according to the local legislation.

## **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.