



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

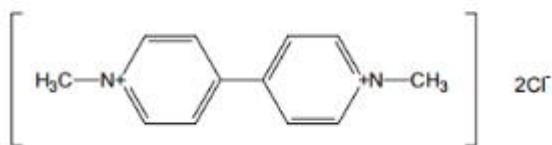
1. Chemical Product Identification

Product Name: Paraquat 42% TC

Molecular Formula: C₁₂H₁₄Cl₂N₂

Molecular Weight: 257.2

Structural Formula:



Chemical Name: 1,1'-dimethyl-4,4'-bipyridylium dichloride

Form: Liquid

Color: Blue to green

Odor: Faint ammoniacal

CAS No.: 1910-42-5

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Paraquat	1910-42-5	42.0
Other ingredients	---	58.0

3. Hazards Identification

Inhalation: Cough. Laboured breathing. Sore throat.

Skin contact: Harmful if absorbed through skin.



Eyes contact: Causes substantial but temporary eye injury

Ingestion: May be fatal if swallowed.

4. First Aid Measures

Inhalation: Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention.

Skin contact: Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention immediately.

Eyes contact: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Ingestion: Rinse mouth. Give plenty of water or bentonite clay in water, or give a slurry of activated charcoal in water to drink. Induce vomiting (ONLY IN CONSCIOUS PERSONS!).

Refer for medical attention.

5. Fire-Fighting Measures

Fire and explosion:

Flash Point: Not expected to self ignite; Not highly flammable

Flammable Limit (% in Air): Lower: % Not Applicable

Upper: % Not Applicable

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing media: In case of fire in the surroundings: powder, water spray, foam, carbon dioxide. 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 of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. Accidental Release Measures

Consult an expert! Collect leaking and spilled liquid in sealed containers as far as possible.

Absorb remaining liquid in sand or inert absorbent and remove to safe place. Sweep spilled



substance into dry, sealed containers. Carefully collect remainder, then remove to safe place (extra personal protection: P3 filter respirator for toxic particles).

7. Handling And Storage

Handling: NO contact with oxidizing agents. Local exhausting or breathing protect. Wear protected gloves and clothing.

Storage: Keep locked up. Separate from strong oxidants, strong bases, food and feedstuffs. Keep in the dark. Wash thoroughly with soap and water after handling.

8. Exposure Controls/Personal Protection

Repeated or prolonged contact with skin may cause dermatitis, abnormalities and loss of fingernails. Lungs may be affected by repeated or prolonged exposure to the aerosol.

Ingestion : Prevent eating, drinking, Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with and eyewash facility and a safety shower.

Skin Contact: wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.

9. Physical and Chemical Properties

Appearance: Blueish green liquid

Density: 1.26g/cm³

Vapor pressure: < 0.1mPa(25°C)

pH: 4.0-6.0

Melting point: Decomposes at 340°C

10. Stability and Reactivity

The product is stable under normal use and storage conditions. The substance decomposes under influence of UV light producing toxic and corrosive fumes including nitrogen oxides, hydrogen chloride. React with strong oxidants and with bases (hydrolysis). Unformulated products are corrosive to common metals. It's inactivated by inert clays and anionic



surfactants.

11. Toxicological Information

Acute oral LD50 for mouse: 110 a.i.mg/kg.

Acute dermal LD50 for rat: >200 a.i.mg/kg.

Inhalation LC50 (4 h) for rat: 0.6 a.i.mg/L.

Eye irritation: Moderately irritation to eye (rabbits).

Skin irritation: Slightly irritation to skin (rabbits).

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

12. Ecological And Ecotoxicological Information

Effect on birds: high toxicity to birds, acute oral LD50 is 35 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is 19 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is 4.4 a.i.mg/L.

Effect on algae: high toxicity to algae, acute 72 hour EC50 for Raphidocelis subcapitata is 0.00023 a.i.mg/L.

Effect on honeybees: moderate toxicity to honeybees, contact acute 48 hour LD50 is 9.26 a.i.µg/bee, oral acute 48 hour LD50 is >9.06 a.i.µg/bee.

Effect on earthworms: low toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is >1000 a.i.mg/kg.

13. Disposal Considerations

Additional inform. : Paraquat is rapidly adsorbed and de-activated in soil. Observe all federal state and local environmental regulations permitted for hazardous waste.

14. Transport Information

Not applicable

15. Regulatory Information

Not applicable



ZHEJIANG RAYFULL CHEMICALS CO., LTD

Tel: +86-577-88905587,88908857

Fax: +86-577-88905567

EMAIL: info@rayfull.com sales@rayfull.com

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.