Difenoconazole -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO.,LTD
ADD: NO.113 PUXING 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

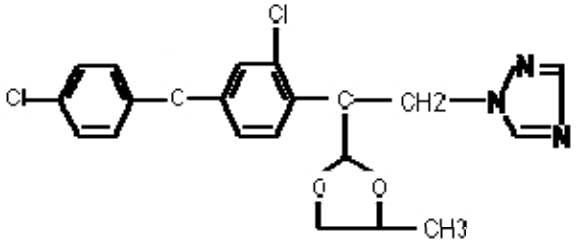
1. Chemical Product Identification

Product Name: Difenoconazole

Molecular Formula: $C_{19}H_{17}Cl_2N_3O_3$

Molecular Weight: 406.3

Structural Formula:



Chemical Name: 1H-1, 2, 4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy) phenyl]-4-methyl-1, 3-dioxolan-2-yl] metyl]

Form: power

Color: gray white

Odor: Paint

CAS No.: 119446-68-3

2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Difenoconazole	119446-68-3	95.0
Other ingredients		5.0

3. Hazards Identification

Symptoms of Acute Exposure: May cause eye irritation.
Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.
Unusual Fire, Explosion and Reactivity Hazards: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. First Aid Measures

General: Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from undercooling. In case of suspected poisoning: Immediately call a physician.

Eye Contact: Rinse eyes with clean water for several minutes and immediately call a physician.

Ingestion: Repeatedly administer medicinal charcoal in a large quantity of water. Note: Never give anything by mouth to an unconscious person. Do not induce vomiting.

Skin Contact: Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water, including hair and under fingernails.

Medical Instructions

Antidote: No specific antidote is known! Apply symptomatic therapy. Experiences Specific to Man: No case of human poisoning is on recor

5. Fire-Fighting Measures

Suitable Extinguishing Media: Dry chemical extinguisher, foam, carbon dioxide or water spray (do not use direct jet of water).

Special Hazards during Fire Fighting: Combustion products are toxic and/or irritant. Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.

Protective Equipment for Fire Fighting: Use self contained breathing apparatus. Wear protective equipment.

6. Accidental Release Measures

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. Handling and Storage

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. Exposure Controls/Personal Protection

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use chemical splash goggles.

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

Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

9. Physical and Chemical Properties

Flash-Point: 64 °C

Melting point : 78.6℃

Density: 1.40g/cm3@20℃

Vapor pressure; 3.3×10^{-5}mPa@25℃

PH Value: 5 - 8 (1 %; in deionised water) CIPAC MT 75

Solubility: 15mg/l@25℃

Partition coefficient; KowlogP=4.20@25℃

10. Stability and Reactivity

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None known.

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

Materials to Avoid: Strong oxidizers.

11. Toxicological Information

Acute Oral Toxicity: LD50: 1453 mg/kg (rat)

>2000mg/kg9mouse)

Acute Dermal Toxicity LD50: > 2010 mg/kg (rat)

Acute Skin Irritation: non-irritant (rabbit)

Acute Eye Irritation: on- irritant (rabbit)

Skin Sensitization: not sensitizing (guinea pig)

12. Ecological and Ecotoxicological Information

Acute oral LD50 :mallard (9-11d) >2150mg/kg

Bobwhite feeding LC50 (8d) >4760mg/kg

Mallard feeding LC50 >5000mg/l

Toxicity to fish

LC50 (96h): rainbow trout 0.8mg/l

Bluegill 1.2mg/l

Earthworm LC50 (14d) >610mg/l soil

Daphnia LC50 (14d): 0.77mg/l

Not toxic to bee: LD50 (oral) > 187μg /bee, LD50 (contact) >100μg/bee

13. Disposal Considerations

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental 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.