

MATERIAL SAFETY DATA SHEET

PRODUCT : Difenoconazole 25 % EC

PRODUCT DESIGNATION : Fungicide

Section 1. Product & Company Identification

Common Name : Difenoconazole
Grade : Formulation
Active Ingredient : Difenoconazole
Chemical Name of Active Ingredient (IUPAC) : 1H-1, 2, 4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy) phenyl]-4-methyl-1, 3-dioxolan-2-yl]metyl]
Chemical Family of A. I. : Triazole
Molecular Formula of A. I. : C₁₉H₁₇Cl₂N₃O₃
Molecular Mass of A. I. : 406.3
Manufacturer & Supplier : **M/s United Chemicals**
Head office:B-371, 1st Floor, Meera Bagh, New Delhi,
Factory:15/1, 15/2, 15/3, Industrial Estate, Vidisha,
(M.P)
Telephone Number : +91-11-25258770

Section 2. Composition / Information on Ingredients

Name of Components	Concentration% w/w
Difenoconazole a.i.	25.00% w/w
Inert ingredient	75.00% w/w
TOTAL	100.00% w/w

Section 3. Hazards Identification

Dangerous for the environment

Keep out of the reach of children.

Health Hazards:

May cause sensitization by skin contact.

Irritating to eyes.

Very toxic to fish.

Keep out of reach of children.

may cause lung damage if swallowed.

Section 4. First Aid Measures

If in Eyes : Flush immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

If in Skin : Wash thoroughly with soap and water. Remove contaminated clothing and shoes and launder.

If Inhaled : Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If Swallowed : Offer a glass of water or milk to drink. Call a physician or poison control center. Do not induce vomiting unless directed.

Antidote: There is no specific antidote. Treat symptomatically.

Section 5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media :

For small fire : Carbon dioxide , dry chemical .

For large fire: Water spray , water fog , foam

Specific hazards :

Thermal decomposition may generate : Carbon monoxide , carbon dioxide , nitrogen oxides , chlorides .

Advice for fire-fighters

Protection against fire :

Do not enter fire area without proper protective equipment, including respiratory protection.

Use self-contained breathing apparatus when in close proximity to fire.

Special procedures :

Exercise caution when fighting any chemical fire. Dike fire control water for later disposal.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use appropriate protection (see section 8).

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.

Methods and material for containment and cleaning up

Clean up methods : Clean up any spills as soon as possible, using an absorbent material to collect it.

Section 7. Handling & Storage

Handling: Avoid ingestion, skin and eye contact. Prevent entry to sewers and public waters.

When using, do not eat, drink or smoke.

Storage:

Keep away from food, drink and animal feeding stuffs. Store in tightly closed, properly ventilated containers away from heat, sparks, open flame. Keep in original containers.

Section 8. Exposure Control, Personal Protection

Occupational Exposure Controls:

Ventilation:

Provide local exhaust ventilation system.

Eye protection:

Employee must wear splash-proof or dust-resistant safety goggles to prevent eye contact with this substance.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain within the immediate work area for emergency use.

Clothing:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves:

Employee must wear appropriate protective gloves to prevent contact with this substance.

Section 9. Physical and Chemical Properties

Appearance / state	: Yellowish to brown liquid
Colour	: Yellowish to brown
Odour	: Not specific
Ph	: 5-8
Density	: 1.07 g/cm ³ at 20 °C
Flash point	: >100
Solubility	: Miscible
Corrosiveness	: Non corrosive

Section 10. Stability & Reactivity

Chemical stability : Stable under normal conditions.

Hazardous reactions : Hazardous polymerization will not occur. Reacts with : Strong acids , strong bases .

Conditions to avoid : Direct sunlight , sources of heat , open flame . Decomposes upon heating.

Hazardous decomposition products : Thermal decomposition may generate : Carbon monoxide , carbon dioxide , nitrogen oxides , chlorides .

Section 11. Toxicological Information

Acute Oral Toxicity	: LD ₅₀ for rats : >2000 mg/kg
Acute Dermal Toxicity	: LD ₅₀ for rats : >2000 mg /kg
Acute Inhalation	: LC ₅₀ (4h) rats : >1.7 mg/l
Eye Irritation	: Moderately irritant
Skin Irritant	: Mildly irritant
Skin sensitization	: Non sensitizer

Section 12. Ecological Information

Acute toxicity	
Rainbow trout -LC₅₀[mg/l] 96 H	-0.39
Bees LD₅₀ [μg]	: > 100
Birds LD₅₀ [mg/kg]	: > 2000 (for the technical material)

Section 13. Disposal Consideration

Waste treatment methods : do not dispose in household garbage

Sewage disposal recommendation : do not dispose of waste into sewer.

Waste disposal recommendation : dispose in a safe manner in accordance with local/national regulations.

Additional information : clean up even minor leaks or spills is possible without unnecessary risk.

Section 14. Transport Information

IMDG Classification

Shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (250 g/l Difenoconazole)
Class	: 9
Packing group	: III
UN number	: 3082
Marine pollutant	: Yes

Section 15. Regulatory Information

Risk phrases :

May cause sensitization by skin contact.

Irritating to eyes.

Safety phrases :

Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat, drink or smoke.

Avoid contact with skin.

Section 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 in 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 produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division : UNITED CHEMICALS, SAFETY DIVISION