

### MATERIAL SAFETY DATA SHEET

PRODUCT : Hexaconazole 5 % SC

PRODUCT DESIGNATION : Fungicide

#### **Section 1. Product & Company Identification**

Common Name : Hexaconazole  
Grade : Formulation  
Active Ingredient : Hexaconazole  
Chemical Name of Active Ingredient (IUPAC) : alpha.-butyl-.alpha.-(2,4-dichlorophenyl)-1H-1,2,4-triazole-1-ethanol;  
Chemical Family of A. I. : Triazole  
Molecular Formula of A. I. : C<sub>14</sub>H<sub>17</sub>Cl<sub>2</sub>N<sub>3</sub>O  
Molecular Mass of A. I. : 314.2  
Manufacturer & Supplier : **M/s United Chemicals**  
**Head office:**B-371, 1<sup>st</sup> 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**

<b>Name of Components</b>	<b>Concentration% w/w</b>
Hexaconazole a.i.	05.00% w/w
Inert ingredient	95.00% w/w
<b>TOTAL</b>	<b>100.00% w/w</b>

#### **Section 3. Hazards Identification**

##### **GHS Hazard Phrases:**

**H302:** Harmful if swallowed.

**H317:** May cause an allergic skin reaction.

**H411:** Toxic to aquatic life with long lasting effects.

**GHS Precaution Phrases:**

**P261:** Avoid breathing { dust/fume/gas/mist/vapors/spray }.

**P264:** Wash { hands } thoroughly after handling.

**P272:** Contaminated work clothing should not be allowed out of the workplace.

**P273:** Avoid release to the environment.

**P280:** Wear { protective gloves/protective clothing/eye protection/face protection }.

**GHS Response Phrases:**

**P301+312:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

**P302+352:** IF ON SKIN: Wash with plenty of soap and water.

**P330:** Rinse mouth.

**P333+313:** If skin irritation or rash occurs, seek medical advice/attention.

**P362+364:** Take off contaminated clothing and wash it before reuse.

**P391:** Collect spillage

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### 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.

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### Section 5. Fire Fighting Measures

**Extinguishing media**

**Suitable extinguishing media :**

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Unsuitable Extinguishing :** A solid water stream may be inefficient

**Fire Fighting Instructions :** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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### Section 6. Accidental Release Measures

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**Protective Precautions :** Avoid raising and breathing dust, and provide adequate ventilation

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves)

**Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

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### Section 7. Handling & Storage

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**Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

**Storage:** Keep container tightly closed. Store in accordance with information listed on the product insert.

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### Section 8. Exposure Control, Personal Protection

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**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.

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## Section 9. Physical and Chemical Properties

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<b>Appearance / state</b>	: White liquid suspension.
<b>Colour</b>	: White
<b>Odour</b>	: Mild odour to odourless.
<b>Boiling Point</b>	: Approximately 100°C at 100kPa.
<b>Density</b>	: 1.04 at 20°C
<b>Vapour Pressure</b>	: 2.37 kPa at 20°C (water vapour pressure).
<b>Solubility</b>	: Dispersible
<b>Volatiles</b>	: Water component

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## Section 10. Stability & Reactivity

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**Conditions to Avoid:** Store in the closed original container in a dry, cool, wellventilated area out of direct sunlight. Incompatibilities: strong oxidising agents.

**Fire Decomposition:** Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. This will only occur after heating to dryness. Carbon dioxide, and if combustion is incomplete, carbon monoxide. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

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### Section 11. Toxicological Information

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**Acute Oral Toxicity** : LD<sub>50</sub> for rats : >5000 mg/kg

**Acute Dermal Toxicity** : LD50 for rats : >5000 mg /kg

**Acute Inhalation** : LC50 (4h) rats : >5.9 mg/l

**Eye Irritation** : Moderate irritant

**Skin Irritant** : Non irritant

**Skin sensitization** : Non sensitizer

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### Section 12. Ecological Information

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**Acute toxicity**

**Rainbow trout** -LC50 96 H -3.1 mg/l

**Bees** LD50 [ $\mu$ g] : > 0.1

**Birds** Mallard duck LD50 [mg/kg] : > 4000

**Daphnia**: EC50 2.9mg/L

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### Section 13. Disposal Consideration

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Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals.

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### Section 14. Transport Information

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#### IMDG Classification

**Shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (HEXACONAZOLE)

**Class** : 9

**Packing group** : III

**UN number** : 3082

**Marine pollutant** : Yes

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### Section 15. Regulatory Information

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#### 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.

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### Section 16. Other Information

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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**