1. Product and Company Identification

Product Name: Hexaconazole 5% SC
Chemical Name: (RS)-2-(2,4-dichlorophenyl)-1-(1H-1,2,4-triazol-1-yl)hexan-2-ol
Type: Fungicide
Molecular formula: C_{14}H_{17}Cl_{2}N_{3}O

2. Composition / Information on ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Percent or content (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexaconazole (based on 92% purity)</td>
<td>79983-71-4</td>
<td>5.43 %</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>-</td>
<td>94.57 %</td>
</tr>
</tbody>
</table>

3. Health Hazards Identification

Eye contact: Non-irritant to mucous membrane of eyes of rabbits.
Skin contact: Non-irritant to skin of rabbits.
Ingestion: Harmful if swallowed.
Environment: Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First Aid Measures

Eyes: Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Skin: Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if required.
Ingestion: If the material was swallowed and signs of toxicity are severe, induce vomiting. Keep the person calm and comfortable and obtain medical assistance as soon as possible.
HEXACONAZOLE 5% SC MSDS

Inhalation  If inhaled, remove to fresh air and keep at rest. Obtain medical aid if required.

5. Fire Fighting Measures

Flash point  Non-flammable

Special exposure hazards  Combustion or thermal decomposition will evolve toxic and irritant vapours.

Suitable extinguishing media  If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.

Fire fighting precaution  Do not breathe fumes. Wear self contained breathing apparatus.

Fire fighting guidance  Whenever hexaconazole is involved in a major fire, advise the fire service to wear protective clothing and breathing apparatus. Inform the fire service and other relevant authorities that Hexaconazole is toxic to aquatic organisms, and that water should be used only to cool unaffected stock. In this way, the accumulation of polluted run-off from the site is prevented.

6. Accidental Release Measures

Personal precaution  Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing.

Environmental precautions  Keep people and animals away. Prevent entry into drains, sewers and watercourses.

Methods and material for containment and cleaning up  Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.
7. Handling and Storage

**Handling**
Wear chemically impervious gloves such as neoprene or nitrile. Wear safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Read and observe all precautions and instructions on the label.

**Storage**
Store in original containers, upright and closed. Store in areas that are cool, dry and well ventilated. Store away from seeds, fertilizers and animal feed stuff.

8. Exposure Controls/Personal Protection

**Engineering controls**
Mechanical ventilation should be used when handling this product in closed spaces.

**Respiratory protection**
NIOSH approved organic vapor respirator in absence of mechanical ventilation.

**Eye protection**
Wear safety goggles with imperforated side shield and face shield.

**Hand Protection**
Wear chemical resistant gloves.

**Skin Protection**
Avoid contact with skin. Wear apron, boots and full protective suit.

**Environmental exposure controls**
Keep away from food, drink and animal feed stuff. This material and its container must be disposed off as hazardous waste. Avoid release to the environment.

9. Physical and Chemical Properties

**Appearance**
white

**Physical state**
liquid

**Odour**
odourless

**Density**
1.04 g/ml

**Stability in water**
emulsify in water
10. Stability and Reactivity

Stability
Stable for two years at ambient conditions

Conditions to avoid
Avoid excessive heat and flame

Incompatibilities
Strong acidic / alkaline materials

Materials to avoid
None under normal condition of use

Hazardous decomposition
Thermal decomposition may release ammonia, carbon monoxide and carbon dioxide and oxides of nitrogen.

11. Toxicological Information

Acute Oral Toxicity
LD$_{50}$ (rats) > 2000 mg/kg

Acute Dermal Toxicity
LD$_{50}$ (Rats) > 2,000 mg/kg b.w

Acute Inhalation
LC$_{50}$ (rats): >5.9 mg/l

Eye Irritation
Rabbit: Moderate Irritant

Skin Irritant
Rabbit: Non irritant

Skin sensitization
Non sensitizer

12. Ecological Information

Birds
Acute oral LD$_{50}$ for (8 d) for Mallard ducks >4000 mg/kg

Fish
Fish: LC$_{50}$ (96 h) for Rainbow trout 3.4 mg/l,
Mirror carp 5.94 mg/l
Sheepshead minnows 5.4 mg/l

Bees
LD$_{50}$ (Oral, Contact, 48 h) : 0.1 mg / bee

13. Disposal Considerations

Waste Disposal Method
Do not empty into drains or waterways. Disposal of product would usually be by incineration in an appropriate licensed commercial incinerator. Advice may be obtained from local waste regulation authorities.
14. Transport Information

Rail/Road (RID/ADR)
Proper Shipper Name : PESTICIDE LIQUID, TOXIC, N.O.S
Class : 6.1
UN No. : 2902
Packing Group : III

Sea (IMDG – Code)
Proper Shipper Name : PESTICIDE LIQUID, TOXIC, N.O.S
Class : 6.1
UN No. : 2902
Packing Group : III
Marine Pollutant : Yes

Air (ICAO/IATA)
Proper Shipper Name : PESTICIDE LIQUID, TOXIC, N.O.S
Class : 6.1
UN No. : 2902
Packing Group : III

Packing Instructions:
Packing instructions on sea: P001/LP01
Packing instructions on air: Y611/618

15. Regulatory Information

Symbol
Xn Harmful

Special Risks (R-Phrases)
R22 Harmful if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Safety Advice (S-Phrases)

S 2 Keep out of the reach of children
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves
S57 Use appropriate containment to avoid environmental contamination.
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

International WHO Toxicity Classification
IV Non-toxic

16. Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.