



MATERIAL SAFETY DATA SHEET

HEXAR[®] 50EC

ASTRA INDUSTRIAL COMPLEX CO., LTD. (ASTRACHEM)
P.O. Box 30447, AL-KHOBAR 31952
KINGDOM OF SAUDI ARABIA

1. PRODUCT IDENTIFICATION

Product Name: HEXAR[®] 50EC

Chemical Class: DMI: triazole

Use: Hexar 50EC is used for the Control of Powdery mildew and many fungi, particularly Ascomycetes and Basidiomycetes, e.g. *Podosphaera*, *Venturia*, *Guignardia*, *Uncinula*, *Hemileia*, and *Cercospora* on vegetables, fruit trees, vines, ornamentals and other crops.

Producer: Astra Industrial Complex Co., Ltd.
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Kingdom of Saudi Arabia
Emergency Tel # (+966) 3 8121 406

2. COMPOSITION / INFORMATION INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
Hexaconazole Technical CAS No. 79983-71-4 Chemical Name: (RS)-2-(2,4-dichlorophenyl)-1-(1H-1,2,4-triazol-1-yl)hexan-2-ol (IUPAC)	4.98 (50 ± 3 g / L)	
Blend of anionic and nonionic Emulsifiers	9.63	
Organic Solvents	85.39	



3. HAZARD IDENTIFICATION

Potential Health Effects: Emergency Overview

Human

- Eyes:** Can cause temporary mild irritation.
- Skin** Can cause a slight irritation on more sensitive areas (face, eyes, and mouth)
- Ingestion:** Can cause stomach irritation resulting in nausea, cramps and vomiting. Large does may cause nasal and respiratory irritation.
- Inhalation:** Excessive Inhalation can cause nasal and respiratory irritation.
- Ecological:** Slight toxic to fish and aquatic life.

4. FIRST AID MEASURES

Eye:

Hold eyelids open and flush with copious amounts of water for 15 minutes. Call a physician if irritation develops or persists after flushing.

Skin:

Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if at all worried.

Ingestion:

Wash out mouth with water. Induce vomiting only if medical treatment is not readily available, and if the patient is fully conscious and also the time since ingestion is less than one hour. Drink one or two glasses of water and induce vomiting by touching back of throat.

Inhalation:

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

5. FIRE FIGHTING MEASURES

Flammable properties:

Flash point: >40 C

Extinguishing Media:

Water spray, foam, dry powder, carbon dioxide or sand.

Protective Equipment for fire-fighting:

Do not breathe fumes, wear self contained breathing apparatus.



Fire Fighting Instructions:

Remove all ignition sources. Use a full faced self containing breathing apparatus along with full protective gear. Keep near by containers and equipment. Cool with a water stream. Contain the run off if possible for proper disposal.

6. ACCIDENTAL RELEASE MEASURES

Personal Precaution:

Avoid contact with spilled material or contaminated sources. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing as detailed in section 8.

Small Spill:

Shut of ignition sources. Stop release Dike or contain release and access to the release area. Take actions to reduce vapour dilute with absorbent materials like sand/saw dust. Clean spill areas of residues and absorbent.

Large spill:

Shut off ignition sources stop release dike or contain release. Isolate and control access to the release area. Take action to reduce vapors. Collect product in to drums and clear spellers.

7. HANDLING AND STORAGE

Handling:

Wear chemically impervious gloves such as neoprene or nitrile. Wear safety glasses/goggles or face shield. Use 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, up right and closed. Store in areas that are cool, dry and well-ventilated. Store away from seeds, fertilizers and animal feed stuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Mechanical ventilation should be used when handling this product in enclosed spaces.

Respiratory Protection:

NIOSH approved organic vapor respirator in absence of mechanical ventilation.

Hand Protection:

Wear chemical resistant PVC or nitrile gloves.

Eye Contact:



Wear safety glasses, goggles and face shield.

Other:

Wear PVC or chemical resistant, disposable overalls and PVC boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Assay:	"Hexaconazole " 50 ± 2.5 g/L
Appearance:	Clear Yellow Liquid free of visible impurities
Density:	0.9846 – 1.1046 Kg/L
Flash Point:	>40°C
Water contents:	<0.5 g/Kg
Acidity as H ₂ SO ₄ :	<5.0 g/Kg
Solubility in Water:	Forms Emulsion

10. STABILITY AND REACTIVITY

Stability:	Stable for two years at temperature not exceeding 35°C
Incompatibility:	Strong acidic / alkaline materials
Hazardous polymerization:	will not occur.
Hazardous Decomposition products:	Not applicable at ambient temperature.

11. TOXICOLOGICAL INFORMATION

Toxicology Data:

(Technical)

Eye:	Mild irritation to eyes (rabbit).
Skin:	No irritation to skin (Rabbit), moderate skin sensitizer (guinea pig).
	Acute dermal LD ₅₀ : >2000 mg/kg (rat)
	Acute Oral LD ₅₀ : 2189 mg/kg (male rat)
	Acute Oral LD ₅₀ : 6071 mg/kg (female rat)
Inhalation:	LC ₅₀ (4 h) >5.9 mg/l. (rat)
Carcinogenicity:	Non Carcinogenic
Reproduction:	No teratogenic effects
Mutagenicity:	Non mutagenic. Did not cause any chromosomal effects. Did not cause any DNA single strand damage.



12. ECOLOGICAL INFORMATION

Persistence in environment:

Slightly mobile in soil and non persistent in aquatic organisms

Toxic effects on organisms: (Technical)

Fish LC ₅₀ 96 h:	5.94 mg/l (mirror carp)
	3.4 mg/l (Rainbow Trout)
Daphnia LC ₅₀ (48h)	2.9 mg/l
Acute LD ₅₀ Bees:	>0.1 mg/bee. (Oral and contact)

Birds:

Acute oral LD ₅₀ :	>4000 mg/kg (Mallard ducks)
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13. DISPOSAL CONSIDERATION

Product Disposal:

Disposal of product will usually be by incineration in an appropriate licensed commercial incinerator. Advice may be obtained from local waste regulation authorities.

Container Disposal:

Lightly contaminated packaging may be accepted for land fill, otherwise incineration is required.

14. TRANSPORT INFORMATION

UN. No:	UN 2903	
Proper Shipping Name:	Pesticide, liquid, toxic, flammable, N.O.S, flash point	
	≥23°C	
Class:	6.1	
Classification Code:	TF2	
Packing group:	III	
Subsidiary Risks:	6.1 + 3	
Special provisions:	61	
Limited quantities:	LQ19	
Packaging:	Packing instructions	P001, IBC03, R001
	Special packing provisions	-
	Mixed Packaging Provisions	MP15
	Instructions	T7
UN Portable tanks	Special Provisions	TP2
	Tank Code	L4BH
ADR Tank	Special Provision	TU15 TE1 TE15 TE19
	Vehicle for tank carriage	FL
	Transport Category	2



Special provision carriage	Packages	-
	Bulk	-
	Loading, unloading & Handling Operation	CV13 CV28 S2 S9
Hazard Identification		63

15. REGULATORY INFORMATION.

Active ingredient Name: Hexaconazole

The following precautions appear in the Precautions section of label / leaflet.

Wash hands and exposed skin after use. Wash splashes from skin or eyes immediately with plenty of water.

The following precautions appear in the 'Statutory conditions relating to use' box of the label / leaflet.

For use only as fungicide, and professional use only.

Wear suitable protective clothing / overall and synthetic rubber / PVC gloves and eye protections when using.

16. OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions.