

P. O. Box: 29024 - 00100 GPO Nairobi - Kenya, Office Line: +254 20 240 3391 / 254 740 529 579 Email: info@eabusinesscompany.com, eabclimited@gmail.com / Skype: ksantosh2001

# **MATERIAL SAFETY DATA SHEET**

## **CROPSTAR 50 EC**

## **CROPSTAR 50 EC (IMAZALIL 500G/L EC)**

### 1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: YIFAN BIOTECHNOLOGY GROUP CO.,LTD.

Address: No. 136 Zhongxing Road Wenzhou Industrial Zone, Wenzhou, Zhejiang, China

Product name: Imazalil 500g/L EC

Product use: Fungicide

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation Type: Emulsifiable concentrate (EC)

Chemical Abstracts name: 1-[2-(2,4-dichlorophenyl)-2-(2-propenyloxy)ethyl]-1H-

imidazole

### **IUPAC** name:

(RS)-1-(β-allyloxy-2,4-dichlorophenethyl)imidazole

or allyl (RS)-1-(2,4-dichlorophenyl)-2-imidazol-1-ylethyl ether

Chemical Family: imidazole fungicide

CAS NO.: 35554-44-0

Molecular Formula: C14H14Cl2N2O

Molecular Weight: 297.2

Structural Formula:

Composition:

INGREDIEN	CAS NO	PROPORTI
Т		ON
lmazalil	35554-44-	500g/L
	0	

Other ingredients determined not to be hazardous

### 3. HAZARDS INDENTIFICATION



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**Emergency overview:** Caution! May cause sensitization by skin contact. Avoid contact with skin, eyes and clothing.

Routes of entry: Ingestion, skin absorption, eye contact, inhalation.

**Health hazards:** 

Eye contact: May cause eye irritation.

Skin contact: May cause sensitization by skin contact. Ingestion: Harmful if swallowed. Do not take internally.

Inhalation: Harmful if inhalation. Do not breathe vapours or spray mist.

**Environmental hazards:** Harmful to aquatic organisms.

### 4. FIRST AID MEASURES

**General:** Have the product container, label or Material Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

**Skin contact:** Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

**Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

**Ingestion:** Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. **Do not leave victim unattended.** 

**Inhalation:** Move to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

**Note to physician:** No specific antidote. Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Flash point: Not flammable.

Flammable limits: LFL: Not determined.

UFL: Not determined.



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**Autoignition temperature:** Not determined.

Hazardous combustion products: In the event of fire the following can be released:

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NOx)

Extinguishing media: Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

Media to be avoided: None known.

**Fire-fighting instructions:** Keep out of smoke. Fight fire from upwind position. Cool closed containers/tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

**Protective equipment for firefighters:** Firefighters should wear approved self-contained breathing apparatus and full protective clothing.

### **6. ACCIDENT RELEASE MEASURES**

**Personal precautions:** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

**Environmental precautions:** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

**Method for cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

### 7. HANDLING AND STORAGE

**Handling:** Read the label before use. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Storage:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure limits:** No exposure limits have been established for this material.

**Engineering controls:** Control process conditions to avoid contact. Use in a well-ventilated area only.

Personal protective equipment (PPE):

Eye/Face Protection: Tightly fitting safety goggles.



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Hand Protection: Chemical resistant nitrile rubber gloves.

Body Protection: Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory Protection: When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**User safety recommendations:** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red brown liquid

**pH:** 7.0~10.0

Vapour pressure: No available S.g./density 1.115 g/ml (26 °C)

Solubility In water3.78 mg/l (pH 7, 20 °C).

In acetone, dichloromethane, ethanol, methanol, isopropanol, xylene, toluene, benzene >500, hexane 19 (all in g/l, 20 °C). Also soluble in heptane and petroleum ether.

### 10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.

Conditions to avoid: Excessive heat.

Hazardous decomposition: In a fire, formation of hydrogen chloride, hydrogen cyanide,

hydrogen fluroride, carbon monoxide and nitrogen oxides can be expected.

**Incompatible materials:** Strong oxidising agents.

Hazardous reactions: Hazardous polymerization will not occur.

### 11. TOXICOLOGICAL INFORMATION

THE FOLLOWING INFORMATION IS FOR THE ACTIVE INGREDIENT. IMAZALIL.

Acute toxicity:

Oral: LD<sub>50</sub> for rats 421 mg/kg. Dermal: LD<sub>50</sub> for rats 3760mg/kg.



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Inhalation: LC<sub>50</sub> for rats 3.16 mg/l air

**Irritant properties:** 

Skin: non-irritation (rabbits).

Eye: moderate irritation (rabbits).

Skin sensitization: Non-sensitizer.

### 12. ECOLOGICAL INFORMATION

THE FOLLOWING INFORMATION IS FOR THE ACTIVE INGREDIENT, IMAZALIL.

### **Ecotoxicity:**

Birds Acute oral LD<sub>50</sub>: for Bobwhite Quail 5859ppm.

LD<sub>50</sub>: for mallard ducks 6308ppm.

Fish LC<sub>50</sub> (96 h): for Oncorhynchus mykiss 1.48ppm, Lepomis macrochirus 3.99ppm

Daphnia EC<sub>50</sub> (48 h): 3.54 mg/l.

Bees Not hazardous to bees when used as directed.

LD<sub>50</sub> (oral): 0.23mg/L.

**Persistence and degradability:** Imazalil does not hydrolyze at pH 5, 7, and 9. It photodegrades rapidly in the neutral aqueous environment (with a half-life of 36 hours). The photolytic fate of imazalil on the soil surface is unknown. By aerobic microbial metabolism, imazalil degraded relatively slowly in a loam soil with a half-life of 166 days.

**Bioaccumulative potential:** No study was conducted to evaluate the accumulation of imazalil in fish. Based on its high octanol water partition coefficient (K<sub>ow</sub>=6,607), imazalil is expected to accumulate in fish. However, the use of imazalil as a seed treatment for wheat and barley, along with its fate properties, mitigates the likelihood that this chemical will reach surface water and accumulate in fish.

**Mobility in soil:** Based on the organic carbon adsorption coefficients ( $K_{OC}$ ) obtained from the adsorption studies, imazalil is classified as a chemical with a "low" soil mobility potential (average  $K_{OC}$  from 8 soils=4,324 mL/g; average  $K_D$  from 8 soils=130 mL/g). The potential for the parent compound to move into ground water and to move with surface runoff water is very low.

### 13. DISPOSAL CONSIDERATION

Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.



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### 14. TRANSPORT INFORMATION

UN Number: 1993

Transport hazard class: 3

Packing group: Ⅲ

Marine pollutant: YES

### 15. REGULATORY INFORMATION

### **Hazard symbols:**

Xn Harmful

### Risk phrases:

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

### Safety phrases:

S2 Keep out of the reach of children

S13 Keep away from food, drink and animal feeding stuffs

S24 Avoid contact with skin

S29 Do not empty into drains

S37 Wear suitable gloves

### **16. OTHER INFORMATION**

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

MSDS Revised Date: 18.04.2018
MSDS Modified Date: 18.04.2020

### **Disclaimer**

The Content given here in, are as per the declaration given by the manufacturer and EABCL Claims zero Responsibility.

### **END OF MSDS**