

# Sharda International Africa cc.

P.O. Box 82021, Southdale, 2135, South Africa.

Tel: 011-680.5247, Fax: 011-680.4848

eMail: shardain@vsnl.com, Website: <http://www.shardaintl.com>

(Company registration No. 2006/186705/23)

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## SAFETY DATA SHEET "SHARDA BIFENTHRIN 100 EC"

Date of Issue: November 2012.

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### 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Name of Product:** "Sharda Bifenthrin 100 EC"

**Active Ingredient:** Bifenthrin

**Chemical Name:** 2-methylbiphenyl-3-ylmethyl(Z)-(1*RS*,3*RS*)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate

**Product Use:** Insecticide.

**Registration holder:** Sharda International Africa cc.

**Address:** P.O. Box 82021, Southdale, 2135.

**Contact Tel. No.:** 011-680-5247

**Emergency Tel. No.:**

**Poison Centres:** UNITAS Hospital – 0800-111-9900  
Tygerberg Hospital – 021-931-6129  
NetCare: 082911.

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### 2. HAZARD IDENTIFICATION (Substance hazard class and category)

**Active Ingredient and Formulation Health Risk:** May be irritating to mucous membranes, eyes and skin.

**Inhalation:** Inhalation may cause coughing, shortness of breath, bronchospasm, chemical pneumonitis and lung oedema.

**Skin Contact:** May cause mild irritation.

**Eye Contact:** Can cause severe irritation and irreversible corrosion.

**Ingestion:** Ingestion may cause nausea, vomiting, stomach ache and diarrhoea.

**Environmental Risks:** Toxic to insects and aquatic organisms.

**Other Risks:** Do not contaminate any water body.

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### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

#### 3.1 Active Ingredient: Bifenthrin

**Chemical Name:** 2-methylbiphenyl-3-ylmethyl(Z)-(1*RS*,3*RS*)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate

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CAS No.: [82657-04-3]

## 3.2 Formulation

**Principal Components:** Bifenthrin

**Concentration:** 100 g bifenthrin per kg; 93.33 g bifenthrin per litre (EC)

Contains aromatic hydrocarbons: 78.0%

**UN No.:** 3082

## 4. FIRST AID MEASURES

**Symptoms of Poisoning:** May be irritating to mucous membranes, eyes and skin.  
Inhalation may cause coughing, shortness of breath, bronchospasm, chemical pneumonitis and lung oedema.  
Ingestion may cause nausea, vomiting, stomach ache and diarrhoea.

**Eye contact:** Flush eyes with plenty of clean water for at least 15 minutes.  
Obtain medical attention immediately.

**Skin contact:** Remove contaminated clothing. Wash skin thoroughly with soap and water.

**Inhalation:** Remove patient to fresh air. Administer symptomatic treatment and obtain medical attention.

**Ingestion:** Do not induce vomiting. Wash out mouth with water. Get medical attention if necessary.

**Advice to doctors / physician:** If ingested perform gastric lavage and administer activated charcoal. Treat symptomatically and give supportive therapy.

**Antidote:** There is no specific antidote.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Use dry chemical, carbon dioxide, soft water spray, foam.

**Fire and Explosion Hazards:** Isolate the fire area. The formulation may be flammable at high temperatures and packaging and other material must be considered.  
The product is not explosive.

**Hazardous Products of Combustion:** Carbon Monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine, hydrogen fluoride.  
Do not breathe smoke, gases or vapours generated.

**Fire Fighting Equipment:** Wear full protective clothing and a self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES (Spillage)

**Personal Precautions and Protective Equipment:** Wear personal protective clothing (overall, boots, gloves).

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**Emergency Procedures:** Isolate the spillage area. Keep unprotected persons and animals out of the area. Dyke to confine the spillage.

**Environmental Precautions:** Keep the spillage out of waterways, drains, streams, rivers and dams.

**Methods and Materials for Cleaning up:** Absorb with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

Refer to Section 13 for disposal of spilled material.

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## 7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed at all times when handling this product. Areas for handling and storage should be well ventilated.

### Handling:

Do not handle near a heat source or ignition point.

Avoid contact with eyes.

Do not eat, drink or smoke while handling this product.

Wash hands and exposed skin thoroughly after handling or contact with this product.

Do not contaminate drains, sewers and water bodies when disposing of equipment rinse water.

Refer to Section 13 for disposal of rinse water.

Observe all safeguards on the label as to cleaning and destruction of the container.

### Storage:

Store in a cool dry place protected from sunlight, moisture and rain.

Store away from any heat source and ignition point.

Keep out of reach of children, uninformed persons and animals.

Store away from food, drink, seed and animal feed.

Store only in the original labelled container.

Minimum Shelf Life: 2 years.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Personal Protective Clothing

To reduce personnel exposure to this product, it is recommended to use appropriate personal protective clothing when handling this product.

Respiratory Protection: For periods of prolonged exposure, wear a face mask or respirator.

Hand Protection: Wear chemical resistant gloves when handling the concentrate.

Eye Protection: Wear a face mask or goggles when handling the concentrate.

Skin and Body Protection: Wear a long sleeved overall and boots.

### Exposure Control Parameters

Exposure Limit: None assigned.

Exposure Limit, aromatic hydrocarbons: May apply, 100 ppm.

### Engineering Controls:

Ensure thorough ventilation when handling the concentrate.

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## Hygiene Measures:

Do not eat, drink, smoke or go to the bathroom while handling this product.

Wash face, hands and exposed skin after handling this product.

Wash contaminated clothing after exposure to this product.

**Re-entry Interval:** Do not enter treated field within 1 day after application unless wearing protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES OF PRODUCT

These are typical data based on tests but may vary from sample to sample. These typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

<b>Appearance, Colour</b>	Golden yellow
<b>Form</b>	Liquid
<b>Odour</b>	Strong aromatic.
<b>pH</b>	6.42
<b>pH; 1% aqueous solution</b>	5.33
<b>Flash Point</b>	19 °C
<b>Explosive Limits</b>	Not explosive.
<b>Boiling Point</b>	Degradation occurs before boiling point is reached.
<b>Decomposition Temperature</b>	313-360 °C
<b>Vapour Pressure</b>	< 8.4 Pa (a.i.)
<b>Density</b>	0.896
<b>Solubility (water)</b>	Bifenthrin = 1.22 mg/ℓ
<b>Partition Coefficient</b>	log Pow = 7.28
<b>Viscosity</b>	Bifenthrin is not viscous.
<b>Volatility</b>	Bifenthrin: < 3.55 Pa m <sup>3</sup> mol <sup>-1</sup>
<b>Corrosivity</b>	The formulation is not corrosive.

## 10. STABILITY AND REACTIVITY

**Stability:** Stable for 2 years under ambient conditions.

**Hazardous Decomposition:** No data available.

**Incompatibility:** No data available.

**Conditions to Avoid:** Heat and ignition sources.

## 11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and health professionals.

Data obtained on this and similar products and components are summarised below.

**Acute Oral Toxicity:** Rat, LD50: 300 mg/kg body weight

**Acute Dermal Toxicity:** Rat, LD50: > 2 000 mg/kg body weight

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**Skin Irritation/Corrosion:** Rabbit, mild irritant.

**Eye Irritation/Damage:** Rabbit, Irritant; can cause irreversible effect.

**Skin Sensitization:** Guinea Pig, Not a skin sensitizer.

**Mutagenicity:** Bifenthrin is not mutagenic.

**Carcinogenicity:** Bifenthrin is not carcinogenic.

**Toxicity to Reproduction and/or Fertility:** Bifenthrin is not a reproduction toxin.

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## 12. ECOLOGICAL INFORMATION

This section is intended for use by eco-toxicologists and environmental specialists.  
Data obtained on bifenthrin active ingredient are summarised below.

### **Aquatic Toxicity, Fish:**

Bluegill Sunfish (*Lepomis macrochirus*): Acute toxicity, 96 hours, static, LC50: 0.00035 mg/ℓ

Rainbow Trout: Acute toxicity, 96 hours, static, LC50: 0.00015 mg/ℓ

### **Aquatic Toxicity, Invertebrates:**

Water Flea (*Daphnia magna*), 48 hours, static, EC50: 1.6 µg/ℓ

### **Arthropod Toxicity**

Honey bee (*Apis mellifera*): Contact, 48 hours, LD50: 0.014 µg/bee

Honey bee (*Apis mellifera*): Oral, 48 hours, LD50: 0.1 µg/bee

### **Avian Toxicity**

Bobwhite Quail (*Colinus virginianus*): Dietary toxicity, 8 days, LC 50: 4 450 mg/kg diet

Bobwhite Quail (*Colinus virginianus*): Acute oral toxicity, LD50: 1 800 mg/kg body weight

Mallard Duck (*Anas platyrhynchos*): Dietary toxicity, 8 days, LC 50: 1 280 mg/kg diet

Mallard Duck (*Anas platyrhynchos*): Acute oral toxicity, LD50: 2 150 mg/kg body weight

### **Soil Organism Toxicity, Invertebrates**

Earthworm (*Eisenia foetida*): Acute toxicity, 14 days, LC50: 18.9 mg/kg dry soil

### **Bioaccumulation**

Bioaccumulation is not expected as metabolism is expected to be rapid.

### **Persistence / Degradability:**

Soil DT<sub>50</sub> = Aerobic DT<sub>50</sub> = 65 to 125 days; Anaerobic DT<sub>50</sub> = 97 to 156 days

Water DT<sub>50</sub> = 2 – 8 days

**Mobility in Soil:** Bifenthrin is not soluble in water; it has an affinity for soil and is unlikely to be mobile in soil.

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## 13. DISPOSAL CONSIDERATIONS

### **Product**

Recycle if appropriate equipment and/or facilities are available.

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Do not burn.  
Dispose of as hazardous industrial waste.  
Keep out of drains, sewers, ditches and water ways.  
Follow all local / regional / national / international regulations.

## Containers

Triple or pressure rinse empty containers.  
Pour rinse water into spray tank; spray on target area.  
Store for collection by approved waste or recycling disposal service.  
Dispose of as non hazardous industrial waste.  
Do not use containers for any other purpose.  
Follow all local / regional / national / international regulations.

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## 14. TRANSPORT INFORMATION

For safe transport of hazardous substances apply appropriate local codes, classifications and regulations.

**UN No.:** 3082

**UN Shipping Name:** Environmentally Hazardous Substance, Liquid, N.O.S.

**Land Transport (road or Rail):** Not classified.

**Sea Transport:** Marine pollutant. Class 9 (Miscellaneous Dangerous Goods)

**Air Transport:** Marine pollutant. Class 9 (Miscellaneous Dangerous Goods)

**Packaging Group:** III

**Marine Pollutant:** Class 9.

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## 15. REGULATORY INFORMATION

RSA: Registration Number L , Act Number 36 of 1947.

SEARCH: Registration in the following countries –

RSA Classification: Group II (Yellow, Hazardous)

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## 16. OTHER

The information presented is not necessarily exhaustive but is regarded as representative. These data are presented in good faith and are believed to be correct. No representation as to the completeness or accuracy of these data is made. No responsibility for damages of any nature whatsoever resulting from the use of or reliance upon this information will be accepted. In the event of any uncertainty, consult the supplier before use.

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