

**SECTION 1 - PRODUCT & COMPANY IDENTIFICATION**

ARYSTA LifeScience South Africa (Pty) Ltd  
Co. Reg. No.: 2009/019713/07  
7 Sunbury Office Park,  
Off Douglas Saunders Drive,  
La Lucia Ridge, South Africa, 4019

Tel: 031 514 5600  
Fax: 031 514 5611

e-mail: [info@arysta.co.za](mailto:info@arysta.co.za)  
Web address: [arystalifescience.co.za](http://arystalifescience.co.za)

**Product Name:** ROSE GUARD  
**Product Use:** Insecticide and Fungicide for Home and Garden Use  
**Creation Date:** January 2014  
**Revision Date:** November 2017

**24 Hr Emergency Number:****In case of Poisoning:**

Poisons Helpline 0861 555 777

**In case of Spillage:**

Spill Tech Oil & Chemical Pollution Control 086 100 0366 / 083 253 6618

**SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS**

**Common Name:** Rose Guard  
**Active Ingredients:** Bifenthrin, Bupirimate, Propiconazole  
**CAS No.:** [082657-04-03];[41483-43-6]; [60207-90-1]  
**Use:** Insecticide and Fungicide for Home and Garden Use  
**Formulation:** Emulsifiable Concentrate

**Hazardous ingredients of toxicological concern:**

<u>Ingredients:</u>	<u>concern:</u>	<u>present (w/v):</u>
Bifenthrin	-	10 g/l
Bupirimate	Irritant, Dangerous to the Environment	75 g/l
Propiconazole	-	25 g/l
Aromatic Solvent	Flammable	700 g/l

**SECTION 3 - HAZARD IDENTIFICATION**

**Symbol:** Xi, F, N  
**Indication of danger:** Irritant, Flammable, Environmental Hazardous Substance  
**Risk-Phrases:**  
**R10** Flammable  
**R20** Harmful by inhalation  
**R22** Harmful if swallowed  
**R36/R37** Irritating to eyes and skin  
**R51** Toxic to aquatic organisms  
**R53** May cause long-term adverse effects in the aquatic environment

**Eye contact:**

Irritating to the eyes

**Skin contact:**

Irritating to the skin

**Inhalation:**

Harmful if inhaled.

**Ingestion:**

Harmful if ingested.

**Environmental hazard:**

Very toxic to fish and aquatic invertebrates. May cause long-term adverse effects in the aquatic environment.

**SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS****MATERIAL SAFETY DATA SHEET**

**Inhalation:**

Move victim to fresh air. Keep victim warm and at rest, Consult the doctor in the event of any complaints.

**Skin contact:**

Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap until no evidence of chemical remains. Do not rub the skin. Seek medical attention if irritation persists.

**Eye contact:**

Check for and remove any contact lenses. Immediately rinse the contaminated eyes with large amounts of gently flowing clean water, occasionally lifting upper and lower lids, for at least 20 minutes until no evidence of chemical remains. Obtain medical attention if irritation persists.

**Ingestion:**

Seek medical advice immediately and make the container or label or Data Sheet available. Do not induce vomiting without medical advice. Rinse mouth with water, only if the person is conscious. Never give anything by mouth to a semi-conscious or unconscious person. If vomiting occurs, take care to prevent vomit from being inhaled. Establish and maintain airway. Treat respiratory difficulty with artificial respiration. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

**Advice to physician:**

Make the label or data sheet available to the physician immediately in order to treat symptomatically and give supportive therapy.

**SECTION 5 - FIRE-FIGHTING MEASURES**

Rose Guard is flammable as it consists of 70% of aromatic solvent.

**Hazardous Combustion Products:**

In the event of a fire toxic and irritating fumes may be emitted, such as carbon monoxide, carbon dioxide, oxides of nitric, oxides of sulphur.

**Extinguishing agents:**

In case of a small fire: Foam, dry chemical or carbon dioxide

In case of a large fire: Water spray, fog or alcohol resistant foam.

**Fire fighting:**

Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours. Keep upwind.

Remove container from fire area if possible and without risk. Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Personal protective equipment:**

Fire-fighters and others that may be exposed should wear full chemical protective clothing, including respiratory protection / self-contained breathing apparatus. See section 8 for recommendations regarding Exposure Controls/Personal Protection. Fire may produce irritating or poisonous vapours of combustion.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)****Personal precautions:**

Do not breathe in mist or fumes. Avoid contact with skin and eyes. For personal protection see Section 8.

**Environmental precautions:**

Do not allow entering drains or watercourses. The product is very toxic to aquatic organisms. In case of accidental spill, prevent the material from getting into lakes, rivers and other bodies of water. Isolate discharged material and keep material out of water sources. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

**Occupational spill:**

Keep spectators away and upwind. Remove all sources of flames and sparks. Do not touch spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

**For spills:** Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains.

Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited.

**MATERIAL SAFETY DATA SHEET**

**SECTION 7 - HANDLING AND STORAGE REQUIREMENTS****Handling:**

Wear appropriate protective equipment when handling the product. Do not handle material near food, feed or drinking water. Avoid contact with eyes, prolonged contact with skin, and inhalation of mist and vapour. Use with adequate ventilation. Ventilate confined spaces before entering. No naked lights. No smoking. Do not eat, drink or smoke while working. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the pesticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

**Storage:**

Keep under lock and key and out of reach of unauthorized persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area, away from feeds, food and water supplies. Avoid breaking the containers, spillage or leaks. Keep away from sources of ignition and heat. Comply with the local regulations.

**SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**

Provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

**PERSONAL PROTECTIVE EQUIPMENT:****Respirator:**

Where exposure through inhalation may occur when handling and or using the product, an approved respiratory protection equipment is recommended. Respirator is not required in the case of normal application procedure of the product.

**Clothing:**

All pesticide handlers (mixers, loaders and applicators) must wear appropriate chemical-resistant protective clothing or other impervious clothing. Wear boots and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing. Wash clothing after use.

**Gloves:**

All pesticide handlers (mixers, loaders and applicators) must wear ear appropriate chemical-resistant protective gloves whenever the product is handled to prevent contact with this substance.

**Eye protection:**

All pesticide handlers (mixers, loaders and applicators) must wear safety or chemical goggles or a face shield or safety glasses.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	EMULSIFIABLE CONCENTRATE, LIQUID
<b>Solubility in water:</b>	Emulsifies in Water
<b>pH:</b>	5.5
<b>Flammable</b>	Yes, 70% of the formulation consisting of an aromatic solvent. Flash point of solvent is 41°C.

**SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Considered stable in unopened original packages, under normal, dry storage conditions.

**Storage stability:** Stable for 2 years under normal, dry storage conditions. Avoid extremes of temperature; below 0 °C and above 48 °C.

**Incompatibility:** Avoid contact with strong acids and strong bases.

**Hazardous decomposition products:** Emits toxic and irritating fumes carbon monoxide, carbon dioxide, oxides of nitric, oxides of sulphur, hydrogen fluoride.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<b>Acute oral LD<sub>50</sub>:</b>	545mg/kg (bifenthrin) rats
<b>Acute dermal LD<sub>50</sub>:</b>	> 2000 mg/kg (bifenthrin) rats
<b>Acute inhalation LC<sub>50</sub> (technical):</b>	0.035 mg/l/4hours (bupirimate)
<b>Skin irritation:</b>	Mild irritant.
<b>Eye irritation:</b>	Mild irritant.
<b>Sensitization:</b>	Moderate sensitizer

**MATERIAL SAFETY DATA SHEET**

**SECTION 12 - ECOLOGICAL INFORMATION****Toxicity to bees:**

Bifenthrin

LD50 µg/bees 0.1 µg/bee (oral); 0.01462 µg/bee (contact)

Bupirimate

LD50 µg/bees 0.20 mg/bee (oral); 0.050 mg/bee (contact)

Propiconazole

LD50 (contact and oral) &gt;100 µg/bee

**Toxicity to fish and other aquatic organisms:**

Bifenthrin

LD50 mg/kg Rainbow Trout 0.00015 mg/l

Bupirimate

LD50 mg/kg Rainbow Trout (96 h) = 1.4 mg/l

Propiconazole

LC50 mg/kg (96 hours):

Bluegill 1.3-10.2,

Brown trout 3.3,

Rainbow trout 0.9-13.2

**Toxicity to birds:**

Bifenthrin

LD50 mg/kg Bobwhite Quail 1800 mg/kg

Bupirimate

LD50 mg/kg Quail &gt; 5200 mg/kg

Propiconazole

LD50 (9 to 11 days):

Mallard duck &gt;2,510 mg/kg, Peking duck &gt;3,000 mg/kg,

**Toxicity to earthworms and soil micro-organisms:**

Bifenthrin

LC50 mg/kg Earthworms &gt; 16 mg/kg dry soil

Bupirimate

Not available

Propiconazole

Non-toxic to earthworms.

**Toxicity to other non-target organisms:**

Bifenthrin

LC50 mg/l Algae = &gt; 8 mg/l

Bupirimate

Not available

Propiconazole

EC50 (20 d) for *Skeletonema costatum* 0.020 mg/l;**Persistence in environment:**

Bifenthrin

DT50 (days) in soil 53 – 195 days (lab); Average DT50 of 106 days. Bifenthrin binds tightly to soil particles, and tends not to move through soils (high Koc).

Bupirimate

DT50 (days) in soil 35 – 90 days (non – sterile flooded or non-flooded soils, pH 5.1 – 7.3). Bupirimate exhibits low mobility in soil.

Propiconazole

DT50 is 50 to 150 days. Propiconazole is practically immobile in soil.

**SECTION 13 - DISPOSAL CONSIDERATION****Pesticide disposal:**

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems.

**MATERIAL SAFETY DATA SHEET**

Do not contaminate rivers, dams or any other water sources with the product or used containers. This product is considered a marine pollutant.

Comply with local legislation applying to waste disposal.

**Container disposal:**

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dump site. Do not burn the empty container.

Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

---

**SECTION 14 - TRANSPORT INFORMATION**

---

UN No.: 2903

**Road Transport ADR/IRD:**

Class: 6.1

Subsidiary Class 3

Packing group: II

Shipping name: Pesticide, Liquid, Toxic, Flammable, liquid, N.O.S. (bifenthrin, bupirimate, propiconazole, aromatic solvent)

**AIR IATA:**

Class: 6.1

Subsidiary Class 3

Packing group: II

Shipping name: Pesticide, Liquid, Toxic, Flammable, liquid, N.O.S. (bifenthrin, bupirimate, propiconazole, aromatic solvent)

**Maritime Transport IMDG/IMO:**

Class: 6.1

Subsidiary Class 3

Packing group: II

Shipping name: Pesticide, Liquid, Toxic, Flammable, liquid, N.O.S. (bifenthrin, bupirimate, propiconazole, aromatic solvent)

---

**SECTION 15 - REGULATORY INFORMATION**

---

Symbol: Xi, F, N

Indication of danger: Irritant, Flammable, Environmental Hazardous Substance

**Risk phrases:**

R10 Flammable

R20 Harmful by inhalation

R22 Harmful if swallowed

R36/R37 Irritating to eyes and skin

R51 Toxic to aquatic organisms

R53 May cause long-term adverse effects in the aquatic environment

**Safety phrases:**

S 1/2 Keep locked up and out of the reach of children.

S 24/25 Avoid contact with skin and eyes.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release into the environment; refer to special instructions / material safety data sheet.

---

**SECTION 16 - OTHER INFORMATION**

---

**Packing and Labelling:**

Packed in 20ml, 25ml, 50ml, 250ml, 500ml, 1L and 5L, plastic containers / bottles and labelled according to the South African regulations and guidelines.

**MATERIAL SAFETY DATA SHEET**

**Disclaimer:**

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof

Please read all labels carefully before using the product.

**MATERIAL SAFETY DATA SHEET**