



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
Web address: arystalifescience.co.za

Substance: fenbutatin oxide (550 g/l)
Product Name: MITRUS
Product Use: Insecticide
Creation Date: August 2006
Revision Date: August 2019

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: FENBUTATIN OXIDE (550 g/l)
Chemical Name: Bis[tris(2-methyl-2-phenylpropyl)tin]oxide
CAS No.: 13356-08-6
Chemical Family: Organotin
Use: Contact acaricide for the control of mites.

Formulation: Suspension concentrate

Symbols: Xi, N
Risk-phrase(s): R20/22, R36/37/38, R40, R43, R50/53

SECTION 3 - HAZARD IDENTIFICATION

Toxicity class:

Of low toxicity order. Slightly Toxic.

Eye contact: May cause irritation. Causing redness, pain and blurred vision.

Skin contact: Moderate irritation. Skin sensitization reaction may occur in some individuals. Avoid long-term contact with the material.

Ingestion: Harmful. Large amounts ingested may cause nausea, vomiting, diarrhea, convulsions, incoordination, fatigue, hypothermia and respiratory paralysis. Neurotoxicity may be referable to carbon disulfide released in the acid environment of the stomach.

Inhalation: Slightly toxic. Inhalation may cause mild inflammation and irritation of the respiratory tract. May cause sore throat, coughing, sneezing, shortness of breath, dizziness and dullness. Prevent long-term exposure, even in small quantities.

Environmental Hazard: Product is very toxic to fish and aquatic organisms.

Hazardous decomposition products: Product can decompose at high temperatures forming toxic gases.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

Inhalation:

Move the victim to fresh air or remove source of contamination. Keep person warm and at rest. Administer artificial respiration if breathing has stopped. Get medical attention immediately if necessary.

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. Do not rub the skin. If irritation persists, seek medical advice. Persons who become sensitized may require specialized medical management.

Eye contact:

Immediately flush the contaminated eyes with gently flowing cold water for 15 to 20 minutes, occasionally lifting the upper and lower lids. If irritation persists, seek medical advice.

MATERIAL SAFETY DATA SHEET

**Ingestion:**

Seek medical advice immediately. Do not induce vomiting without medical advice. Give 2 glasses of water to drink. Never give anything by mouth to an unconscious person.

Advice to physician:

This product contains fenbutatin oxide. No antidote is available. Empty the stomach by gastric lavage. Treat symptomatically and supportively.

SECTION 5 - FIRE-FIGHTING MEASURES

Hazardous Combustion Products:

Combustion and/or fire generates products of hydrogen sulfide, carbon dioxide, carbon monoxide, nitrogen oxides, sulfur dioxide and carbon disulfide.

Extinguishing agents:

Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock. Do not use direct jet of water. Avoid water coming in contact with the product. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

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 and self-contained breathing apparatus. See section 8 for recommendations regarding Exposure Controls/Personal Protection.

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. Mitrus is highly toxic to fish and aquatic species. 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.

To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited.

Do not get water inside containers.

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. 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.

MATERIAL SAFETY DATA SHEET



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 unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area, away from heat, sparks and other sources of ignition. No smoking is allowed. Protect the product from temperatures below 0°C and above 48°C. Not to be stored next to feeds, food and water supplies. Avoid breaking the containers, spillage or leaks. 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:

In the event of an accidental discharge of the material when a heavy vapour or mist is produced, workers should put on an approved full-face respirator suitable for protection from spray or mists of pesticides. Respirator is not required in the case of normal application procedure of the product.

Clothing:

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:

Wear appropriate chemical-resistant protective gloves whenever the product is handled to prevent contact with this substance. Wash gloves after use.

Eye protection:

Use safety goggles, safety glasses or face-shield.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, an eye wash fountain or appropriate alternative within the immediate work area for emergency use, must be provided.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	white, viscous suspension concentrate.
Odour:	Light clinical.
Solubility in water:	Dispersable in water.
Density:	1,140 g/l
pH of 1 % aqueous dilution:	7.5
Flash point:	None.

SECTION 10 - STABILITY AND REACTIVITY

Stability:

Considered stable in unopened original packages, under normal, dry storage conditions. Compatible with most fungicides and insecticides. Always perform a compatibility test before using with other products. Do not physically mix concentrate directly with other pesticide concentrates, always dilute first.

Storage stability:

Stable for 2 years under normal, dry storage conditions in unopened packages. Avoid extremes of temperature; below 0 °C and above 48 °C.

Incompatibility:

Avoid contact with oxidizing agents and acids. Keep away from moisture, heat or flame.

SECTION 11 - TOXICOLOGICAL INFORMATION

No harmful effects are expected if the precautions on the label and this MSDS are followed.

Inhalation Inhalation of vapours (from heating), mists or aerosols may produce respiratory irritation.

Headache, low backache, drowsiness and irregular eye movements have been reported when high concentrations of ethylene glycol have been inhaled.

MATERIAL SAFETY DATA SHEET



Ingestion Possible symptoms of exposure include: irritation of the respiratory tract with symptoms including coughing, discomfort, difficulty breathing or shortness of breath. Initial symptoms following a large dose (>100ml) are those of alcohol intoxication (without the odour of ethanol) progressing to vomiting, cyanosis, headache, muscle tenderness, stupor, convulsions and unconsciousness.

Respiratory system involvement may occur 12-24 hours after ingestion.

Symptoms may include hyperventilation and rapid shallow breathing. From 24-72 hours, the patient may experience a decrease in urine output, flank pain progressing to renal failure which may be permanent.

Skin	Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
Eye	May irritate the eyes.
Chronic Effects	Kidney damage has been noted in laboratory animals that have been fed excessive doses of ethylene glycol.
Reproductive Toxicity:	No such effects have been observed in the absence of maternal toxicity.
Mutagenicity	Data indicates no mutagenic effects.
Carcinogenicity	Data indicates no carcinogenic effects.
Acute Toxicity - Oral	LD50 (rat) 3000 - 4400 mg/kg for fenbutatin oxide LD50 (rat) 4700 mg/kg for ethylene glycol
Acute Toxicity -Dermal	LD50 (rat) >1000 mg/kg for fenbutatin oxide
Acute Toxicity -Inhalation	LC50 (rat) (4hr) 0.15 mg/l
Eye Irritation	The product is an eye irritant.
Skin Irritation	The product is a skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGY:

Acute Toxicity The following is data for the active ingredient, fenbutatin oxide.

Fish: Fenbutatin oxide is highly toxic to fish and aquatic organisms.

LC₅₀ (96hrs): Bluegill sunfish: 0.0048 mg/l

LC₅₀ (96hrs): Rainbow trout: 0.0066 mg/l

Daphnia:

LC₅₀ (24hr) for fenbutatin oxide is 0.05 - 0.08 mg/l.

Other Organisms: Not toxic to bees

LD₅₀ Bees >200 µg/bee

SECTION 13 - DISPOSAL CONSIDERATION

Pesticide and container disposal:

Open dumping or burning of this pesticide is prohibited. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

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. Destroy it by perforation and flattening and bury in an approved dump site. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

SECTION 14 - TRANSPORT INFORMATION

UN NUMBER: 3082

ADR/IRD:

Packaging group: III

Class: 9

Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (maneb 43 %, zinc oxide 0,5 %)

MARINE POLLUTANT

SECTION 15 - REGULATORY INFORMATION

MATERIAL SAFETY DATA SHEET



Symbol: Xi, N
Indication of danger: Irritant, Environmentally Hazardous Substance.

Risk phrases:

- R 20/22** Harmful by inhalation and if swallowed.
- R 36/37/38** Irritating to eyes, respiratory system and skin.
- R 40** Limited evidence of a carcinogenic effect.
- R 43** May cause sensitization by skin contact.
- R 50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- S 2** Keep out of the reach of children.
- S 13** Keep away from food, drink and animal feeding stuffs.
- S 24/25** Avoid contact with skin and eyes.
- S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.
- S 47/49** Keep only in original container at a temperature not exceeding 48 °C.
- S 60** This material and its container must be disposed of as hazardous waste.
- S 61** Avoid release to the environment. Refer to special instructions/safety data sheets.

SECTION 16 - OTHER INFORMATION

Packing and Labelling:

Packed in 250ml 1, 5, litre fluorinated plastic containers and labelled according to the South African regulations and guidelines.

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.

MATERIAL SAFETY DATA SHEET