

Infosafe No™ 3NV0C	Issue Date : July 2017	ISSUED by NUFARM
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 Product Name **SHIRTAN Liquid Fungicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	SHIRTAN Liquid Fungicide
<b>Product Code</b>	5113
<b>Product Type</b>	Group Y Fungicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	To control pineapple disease of sugar cane.
<b>Other Information</b>	

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	OT3 Acute Toxicity - Oral: Category 3 DT3 Acute Toxicity - Dermal: Category 3 IT 3 Acute Toxicity - Inhalation: Category 3 SC-1B Skin Corrosion/Irritation: Category 1B RE1 STOT Repeated Exposure Category 1 SE-1 STOT Single Exposure Category 1 FL3 Flammable Liquids: Category 3 AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H314 Causes severe skin burns and eye damage. H372 Causes damage to organs through prolonged or repeated exposure. H370 Causes damage to organs. H410 Very toxic to aquatic life with long lasting effects.
<b>General Precautionary Statement (s)</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Skull and crossbones, Corrosion, Health hazard, Flame, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



<b>Precautionary statement – Prevention</b>	P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves, clothing, eye and face protection. P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe mists or vapours.
<b>Precautionary statement – Response</b>	P314 Get medical advice/attention if you feel unwell. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician.

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**Other Information**

P321 Specific treatment (see Advice to Doctor on this SDS).  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 Poisons Schedule S7 DANGEROUS POISON

**3. Composition/information on ingredients**

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Mercury as Methoxy Ethyl Mercuric Chloride	123-88-6	120 g/L
	Methanol	67-56-1	179 g/L
	Other ingredients determined not to be hazardous	N/A	Balance

**4. First-aid measures**

<b>Inhalation</b>	Remove victim from exposure - avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Obtain medical assistance.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give a glass of water. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
<b>Skin</b>	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water. For skin burns, immediately flood skin with copious amounts of water. Cover with a clean, dry dressing. Seek medical advice, but only after the exposed skin has been thoroughly washed.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	Ingestion of an organic mercury compound, even at low dosage, is life threatening and management is difficult. Basic poisoning management steps are: Limit gastrointestinal absorption. If product has been ingested in the past few hours, the stomach must be evacuated by intubation and lavage, taking all precautions to protect the respiratory tract. Repeated administration of activated charcoal may be beneficial. Administer a chelating agent. Succimer or D-Penicillamine (D-Penamine) may be used. NB. Dimercaprol (BAL) is contraindicated and EDTA is ineffective. (2) Consider use of extracorporeal haemodialysis and haemoperfusion, although the unmodified organic mercurials are not efficiently dialyzable across most membranes, when used in combination with chelating agents, dialysis may be of some use in removing organic mercury from the blood. Very little can be done to mitigate the neurological damage caused by organic mercurials.

**5. Fire-fighting measures**

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Special Protective Equipment for fire fighters</b>	Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.
<b>Specific hazards arising from the chemical</b>	Decomposes on heating emitting toxic fumes of mercury.

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**Hazchem Code** 2X

**Other Information** STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

## 6. Accidental release measures

**Spills & Disposal** Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).

Collect in sealed open top containers for disposal.

Keep upwind.

If possible, ring 1800 033 498 for specialist advice.

**Personal Protection** For appropriate personal protective equipment (PPE), refer Section 8.

**Environmental Precautions** Prevent from entering drains, waterways or sewers.

## 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** Store in the closed, original container in a cool, well ventilated area.

Do not store for prolonged periods in direct sunlight.

Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Store in a locked enclosure.

**Other Information** Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

**Occupational exposure limit values** Safe Work Australia has set the following exposure standard for Mercury, alkyl compounds (as Hg) : TLV (TWA) 0.01 mg/m<sup>3</sup>, STEL 0.03 Sk.

Safe Work Australia has set the following exposure standard for Methanol : TLV (TWA) 262 mg/m<sup>3</sup>, STEL 328 Sk.

'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. Provide ventilation as required to maintain airborne concentration levels below the exposure standard.

**Appropriate engineering controls** Use in a well ventilated area only.

**Personal Protective Equipment** When opening the container, preparing the dip and using the prepared dip wear protective waterproof clothing, elbow-length PVC gloves, water resistant footwear and full-facepiece respirator (or goggles and half facepiece respirator). Avoid generating a spray or mist.

**Hygiene Measures** After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

After each day's use, wash contaminated clothing and safety equipment.

## 9. Physical and chemical properties

**Form** Liquid

**Appearance** Dark red liquid

**Boiling Point** ~100°C (water)

**Solubility in Water** Miscible with water.

**Specific Gravity** 1.16

**Vapour Pressure** 133 mPa

**Flammability** Flammable Liquid. GHS category 3. Does not sustain combustion therefore not classified as a flammable liquid for transport by ADG7.

## 10. Stability and reactivity

**Chemical Stability** Shirtan is stable in alkaline conditions, but is decomposed by acid to ethylene, methanol (flammable) and mercury salt.

## 11. Toxicological Information

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

**Acute Toxicity - Oral** LD50 (rat) (15% solution) 22-44 mg/kg  
LD50 (rat) 30 mg/kg for methoxy ethyl mercuric chloride

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<b>Ingestion</b>	The concentrate is very toxic if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain, convulsions, chemical burns, loss of consciousness and possible death.
<b>Inhalation</b>	May cause irritation to mucous membranes and respiratory tract. Breathing vapour can result in headaches, dizziness and possible nausea.
<b>Skin</b>	Unless removed immediately, will cause burns. Can cause toxic dermatitis ranging from mild irritation to the production of slow healing ulcers. Can be absorbed through the skin. (1) Effects can include those seen if swallowed.
<b>Eye</b>	Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
<b>Chronic Effects</b>	Repeated minor exposure may have a cumulative poisoning effect. Poisoning by alkoxyalkyl mercury compounds usually begins with loss of appetite, flatulence and diarrhoea. The patient may complain of weight loss, exhaustion and headache. Albuminuria is a common finding and may be accompanied by generalised edema. Signs of injury of the central nervous system include numbness of the fingers and toes and some degree of ataxia. (1)

## 12. Ecological information

<b>Bioaccumulative Potential</b>	Risk of bioaccumulation in aquatic species is high.
<b>Environmental Protection</b>	Marine pollutant.

## 13. Disposal considerations

<b>Product Disposal</b>	Dispose of the discarded dip and spray solutions by combining with sand/soil mixture and bury under 500mm of soil away from water sources and homes.
<b>Container Disposal</b>	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## 14. Transport information

<b>Transport Information</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
<b>U.N. Number</b>	3012
<b>UN proper shipping name</b>	MERCURY BASED PESTICIDE, LIQUID, TOXIC - (contains Methoxy ethyl mercury chloride)
<b>Transport hazard class(es)</b>	6.1
<b>Hazchem Code</b>	2X
<b>Packaging Method</b>	3.8.6.1
<b>Packing Group</b>	III
<b>Storage and Transport EPG Number</b>	Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. 6A5
<b>IERG Number</b>	34
<b>UN Number (Sea Transport)</b>	3012
<b>IMO Class/Packing Group</b>	Class 6.1; Packing Group III.

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<b>IMO Marine Pollutant</b>	Marine Pollutant
<b>IMO Proper Shipping Name</b>	MERCURY BASED PESTICIDES, LIQUID, TOXIC, N.O.S. (contains Methoxy ethyl mercuric chloride)

## 15. Regulatory information

<b>Regulatory Information</b>	WHS Schedule 11: item 8 - Flammable Liquid category 3. WHS Schedule 11, item 35: Acute toxicity oral, dermal, inhalation category 3 . WHS Schedule 11, item 38 ( Skin corrosion category 1B )
<b>Poisons Schedule</b>	S7
<b>Packaging &amp; Labelling</b>	DANGEROUS POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>Other Information</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 49572.

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	12/07/2017
<b>Literature References</b>	(1) Handbook of Pesticide Toxicology, 1991 (Hayes and Laws) Vol 2, pg 523-524 (Academic Press Inc). (2) Handbook of Pesticide Toxicology, 2001 2nd Edition Vol 2, pg 1375.
<b>Contact Person/Point</b>	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
<b>Revisions Highlighted</b>	The SDS was reviewed. Minor changes were made to the information and product has been rebranded. ...End Of MSDS...

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