

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY:

#### TOKUTHION

SUPPLIER NAME: Zelam Limited  
MANUFACTURER: Arysta Lifescience Corporation  
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CHEMICAL FAMILY: Organophosphorous derivative USE: Insecticide

### 2. COMPOSITION / INFORMATION ON INGREDIENTS:

COMMON NAME:	CAS NUMBER:	CONCENTRATION %:	HAZARD CLASSIFICATIONS:
Inerts		Balance	
Prothiofos	34643-46-4	500g/L	
Xylene	1330-20-7	400 g/l	
n-Butanol	71-36-3	17g/L	

### 3. HAZARDS IDENTIFICATION:

3.1C; Warning - Flammable Liquid and Vapour.  
Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.  
Harmful - may cause skin irritation. Avoid contact with skin.  
Harmful - may cause eye irritation. Avoid contact with eyes.  
Harmful - may cause skin sensitisation from prolonged skin contact. Avoid skin contact.  
Toxic - may cause organ damage from repeated oral exposure at high doses.  
Very toxic to fish/aquatic organisms with long-lasting effects. Avoid contamination of any water supply with product or empty container.  
Toxic to terrestrial vertebrates [birds].  
Toxic to terrestrial invertebrates [bees].  
Refer to Section 15 for ERMA Requirements.

### 4. FIRST - AID MEASURES:

EYE CONTACT: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical attention immediately. Take especial care if contact lenses are worn.

SKIN CONTACT: Immediately flush with plenty of water while removing contaminated clothing. DO NOT scrub the skin. Continue for at least 15 minutes. Wash clothing before reuse.

INHALATION: If inhaled, move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Use mouth to nose rather than mouth to mouth. Obtain medical attention.

INGESTION: If swallowed, rinse mouth with water immediately. DO NOT induce vomiting. Seek medical attention. Contact the National Poisons Centre 0800 POISON [0800 764 766]

NOTES TO DOCTOR: Cholinesterase inhibitor. Atropine tablets 0.6mg and activated charcoal (for swallowing cases)

### 5. FIRE FIGHTING MEASURES:

FLASHPOINT: 31.2 °C HAZCHEM Code: 3Y

FLAMMABLE LIMITS: Upper Flammability Limit: 6.6% Lower Flammability Limit: 1.1%

EXTINGUISHING MEDIA: Carbon dioxide, Dry chemical, Foam, or Water spray (fog).

THERMAL DECOMPOSITION PRODUCTS: Hydrogen Chloride, Oxides of Carbon, Sulphur & Phosphorous may be formed.

SPECIAL FIRE FIGHTING METHODS: Vapours may be toxic. Self contained breathing apparatus required. Do not allow contaminated run-off to enter drains.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

### 6. ACCIDENTAL RELEASE MEASURES:

Use appropriate protective equipment. Clear area of unnecessary personnel. Spills may be slippery and should be cleaned up immediately. Large spill: Dike and pump as much as possible to a salvage container. Absorb the remaining liquid and any small spills with clay granules, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb. Minimise runoff into waterways or drains. It may be disposed of as an industrial waste in a manner acceptable to good waste management practice in a land fill and in compliance with all regulations.

### 7. HANDLING AND STORAGE:

This product triggers specific handling and storage requirements for Class 3.1 C, as detailed in the Hazardous Substances [Classes 1 to 5 Controls] Regulations 2001.  
Store in a well ventilated place in original containers. Keep from extreme heat and open flames. Make sure the material does not come into contact with foodstuffs or fodder. Harmful - Keep out of reach of children.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: No exposure limits (WES, TEL, or EEL's) have been specifically assigned for this product.

EYE PROTECTION: Chemical goggles or face shield where splash may occur.

RESPIRATORY PROTECTION: Avoid breathing in vapours or aerosol from the product. Use an appropriate respirator if exposed to the vapours or aerosol from the product.  
For short term exposure to mists and aerosols use a mask and filter eg. Filter A-P2 or a filter canister for organic vapours.

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PROTECTIVE CLOTHING:	Wear protective clothing such as impervious gloves, waterproof hat, coat and trousers (worn outside rubber boots) when using. Wash protective clothing daily after work.
VENTILATION:	Transfer or mix with adequate ventilation.
HYGIENE PRECAUTIONS:	Do not eat drink or smoke while working with this product. Remove clothing that becomes soaked or contaminated and wash before reuse. Wash hands before breaks and after work. The use of a skin barrier cream is useful to give additional skin protection.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE / STATE / ODOUR:	Clear brown liquid, characteristic xylene odour.		
BOILING POINT:	138 - 142 °C @ 100kpa [xylene]	pH:	5 - 6
DENSITY:	1.07	SETTING POINT:	Not Available
DECOMPOSITION TEMP:	Not Available	AUTOIGNITION TEMP:	500 °C [xylene]
FLASHPOINT:	31 °C	VAPOUR DENSITY:	3.7 [xylene]
EXPLOSION PROPERTIES:	Not Available	VAPOUR PRESSURE:	1kpa @ 20°C [xylene]
SOLUBILITY:	Emulsifies in water		
OTHER DATA:			
OCTANOL / WATER PARTITION COEFFICIENT:	Xylene: 3.12 - 3.20; Prothiofos: 5.67 (log P octanol/water)		

### 10. STABILITY AND REACTIVITY:

CONDITIONS TO AVOID:	Keep away from sources of sparks or ignition.
MATERIALS TO AVOID:	Strong acids, strong bases, oxidising agents
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen Chloride, Oxides of Carbon, Sulphur & Phosphorous may be formed.

### 11. TOXICOLOGICAL INFORMATION:

ACUTE ORAL:	LD50 Rats: 1800 mg/Kg
ACUTE DERMAL:	LD50 Rats: 5000 mg/Kg
ACUTE INHALATION:	LD50 Rats: >2.7 mg/Kg [4hr - aerosol] prothiofos
OTHER TOXICITY INFORMATION:	6.1D; Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. 6.3A; Harmful - may cause skin irritation. Avoid contact with skin. 6.4A; Harmful - may cause eye irritation. Avoid contact with eyes. 6.5B; Harmful - may cause skin sensitisation from prolonged skin contact. Avoid skin contact. 6.9A; Toxic - may cause organ damage from repeated oral exposure at high doses.

### 12. ECOLOGICAL INFORMATION:

Aquatic Toxicity: LC50 (96h) rainbow trout;	0.7 mg/L (Prothiofos).
LC50 Daphnia;	0.014 mg/L (Prothiofos).
Terrestrial Vertebrates - Birds: LD50 J quail;	100-200 mg/kg (Prothiofos).
9.1A; Very toxic to fish/aquatic organisms with long-lasting effects. Avoid contamination of water supply with product/empty container	
9.3B; Toxic to terrestrial vertebrates [birds].	
9.4B; Toxic to terrestrial invertebrates [bees].	
Toxic to bees - Spray must not be applied to plants in flower, or are likely to flower within 7 days, if they are likely to be visited by bees.	

### 13. DISPOSAL CONSIDERATIONS:

Dispose of this product only by using according to the label. Triple rinse container and add rinsate to spray tank. Crush or puncture cleaned, empty containers and dispose of container at an approved landfill. Avoid contamination of any water supply or stream with this product or empty container.

### 14. TRANSPORT INFORMATION:

Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S.	UN Hazard Class:	3
UN Number:	1993	Packing Group:	III
Hazchem Code:	3Y		
Additional Information:	Contains Prothiofos & Xylene		
Do not carry more than 1 L of this product on a passenger service vehicle.			
This product requires segregation from certain other Classes of Dangerous Goods. Check the latest LTSA DG Rule 45001 for additional information.			

### 15. REGULATORY INFORMATION:

APPROVED HANDLER:	The product must be under the personal control of an approved handler when: a) the product is applied in a wide dispersive manner; or b) used by a commercial contractor. This product must not be applied to plants in flower, or are likely to flower within seven [7] days, if they are likely to be visited by bees.		
RECORD KEEPING:	A written record of use is required if 3 kg or more of the product is used within 24 hours in a place where: a) public may lawfully be present; or b) the substance is likely to enter air or water and leave the place. The information must be kept for a minimum of three [3] years.		
ERMA Approval Code:	HSR000200	ACVM Pesticide Number:	P02731
See the ERMA Website for more details: www.ermanz.govt.nz			

### 16. OTHER INFORMATION:

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product's properties.