

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

### **ZELAM DODINE 400**

SUPPLIER NAME: Zelam Limited  
SUPPLIER CODE: None  
SUPPLIER ADDRESS: Hudson Road, Bell Block, New Plymouth, New Zealand  
SUPPLIER PHONE: +64 6 7559234 SUPPLIER FAX: +64 6 7551174  
EMERGENCY PHONE: 0800 243 622, 0800 CHEMCALL  
CHEMICAL FAMILY: Guanadine USE: Horticultural fungicide

## 2. COMPOSITION / INFORMATION ON INGREDIENTS:

COMMON NAME:	CAS NUMBER:	CONCENTRATION %:	HAZARD CLASSIFICATIONS:
Dodine	2439-10-3	40%	Class 6, 9
Inerts		< 5%	
Surfactants		< 10%	
Water		Balance	

## 3. HAZARDS IDENTIFICATION:

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 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.  
Harmful to terrestrial vertebrates [birds].  
Harmful to terrestrial invertebrates [bees].  
Refer to Section 15 for ERMA Requirements.

## 4. FIRST - AID MEASURES:

EYE CONTACT: Gently rinse the affected eyes with flowing water for at least 15 minutes. Get prompt medical attention.  
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: Avoid inhalation of spray or mists which are likely to be irritating. Remove the victim to a source of fresh air and seek medical advice.  
INGESTION: If swallowed, DO NOT induce vomiting. Give nil by mouth. Take to hospital without delay.  
NOTES TO DOCTOR: No specific antidote. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES:

FLASHPOINT: Non Flamable. HAZCHEM Code: 2X  
FLAMMABLE LIMITS: Not Applicable.  
EXTINGUISHING MEDIA: Foam, Carbon dioxide, Dry chemical or Water spray (fog).  
THERMAL DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon.  
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: Take additional care if mixed with chlorine releasing compounds - increased skin irritancy

## 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. Warning this substance is very toxic to aquatic organisms. Avoid contamination of any water supply with this substance or empty container.

## 7. HANDLING AND STORAGE:

Store in original container, tightly closed under lock and key, away from food stuffs. Wash protective clothing daily after work.  
Harmful - Keep out of reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: Not established by OSHA.  
EYE PROTECTION: Chemical goggles or face shield where splash may occur.  
RESPIRATORY PROTECTION: Not normally required. Exceptions: In the case of fire or during the formation of mists or aerosols.  
PROTECTIVE CLOTHING: When handling wear waterproof gloves, overalls and boots. Avoid skin contact. 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: White free flowing suspension.

BOILING POINT:	100°C.	pH:	6.
DENSITY:	1.00.	SETTING POINT:	0 to -10°C.
DECOMPOSITION TEMP:	>100°C.	AUTOIGNITION TEMP:	Not known.
FLASHPOINT:	Not applicable.	VAPOUR DENSITY:	Not available.
EXPLOSION PROPERTIES:	Not applicable.	VAPOUR PRESSURE:	Not applicable.
SOLUBILITY:	630 ppm in water 25°C.		
OTHER DATA:	None		

OCTANOL / WATER PARTITION COEFFICIENT: 0.76 @ 22°C.

### 10. STABILITY AND REACTIVITY:

CONDITIONS TO AVOID: Stable under the normal range of ambient conditons.  
Avoid excessive heat over 50°C.

MATERIALS TO AVOID: Concentrated alkali releases the dodine in the free base.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may release ammonia, carbon monoxide and carbon dioxide and oxides of nitrogen.

### 11. TOXICOLOGICAL INFORMATION:

ACUTE ORAL: Acute oral toxicity (rat) LD50 > 1000 mg/kg.

ACUTE DERMAL: Acute dermal toxicity (rabbit) > 1500 mg/kg.

ACUTE INHALATION: No data.

OTHER TOXICITY INFORMATION: 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 organ damage from repeated oral exposure at high doses.

### 12. ECOLOGICAL INFORMATION:

Aquatic Toxicity: LC50 Harlequin fish (96 hr) 0.6 mg/L  
Soil Toxicity: Not toxic to worms.  
Terrestrial Vertebrates - Birds: Harmful to birds. LD50 Mallard Ducks: 1142 mg/kg  
Terrestrial Invertebrates - Bees: Harmful to bees. LD50 Bees >0.11 mg/Kg.

Very Toxic to fish/aquatic organisms with long lasting effects. Avoid contamination of any water supply with this product or empty container.  
Harmful to terrestrial vertebrates [birds]  
Harmful to terrestrial invertebrates [bees]

### 13. DISPOSAL CONSIDERATIONS:

Triple rinse container and add rinsate to spray tank. Dispose of container at an approved landfill or Agrecovery Depot. Avoid contamination of any water supply or stream with this product or empty container.

### 14. TRANSPORT INFORMATION:

Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S	UN Hazard Class:	9.
UN Number:	3082	Packing Group:	III
Hazchem Code:	2X		
Additional Information:	Contains Dodine.		

### 15. REGULATORY INFORMATION:

Approved Handler. An approved handler is required where:

- The product is applied in a wide dispersive manner (aerial, motorised equipment).
- By a commercial contractor.
- Directly onto or into water.

If an approved handler is present at the facility where the substance is being handled, or the approved handler has provided guidance to the person in respect to the handling of the product and is present at all times a non approved handler may handle the product.

Record Keeping. Record keeping is required if more than 3 Kg is used within 24 hours in a place where the substance is likely to enter air or water and leave the place. The information must be kept for a minimum of three years.

This product DOES NOT have Tracking Requirements.

See the ERMA Website for more details: [www.ermanz.govt.nz](http://www.ermanz.govt.nz)  
ERMA Approval Code: HSR000494.  
ACVM Pesticide Number: P005873.

### 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 products' properties.