

Material Safety Data Sheet

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

PRODUCT NAME: **ZELAM DODINE 400**
MANUFACTURER: Zelam Ltd
SUPPLIER NAME: Zelam Ltd
SUPPLIER ADDRESS: 13-15 Hudson Rd, Bell Block, New Plymouth, New Zealand
SUPPLIER PHONE: +64 6 7559234 SUPPLIER FAX: +64 6 7551174
EMERGENCY PHONE: 0800 243 622, 0800 CHEMCALL INTERNATIONAL EMERGENCY PHONE: +64 3 353 0199
CHEMICAL FAMILY: Guanadine USE: Horticultural fungicide

2. HAZARDS IDENTIFICATION:

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.
6.9B: Harmful - may cause organ damage from repeated oral exposure at high doses.
9.1A: Very Toxic to fish with long lasting effects. Avoid contamination of any water supply with this product or empty container.
9.3C: Harmful to terrestrial vertebrates [birds]
9.4C: Harmful to terrestrial invertebrates [bees]
Refer to Section 15 for NZ EPA Requirements.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

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

4. FIRST - AID MEASURES:

EYE CONTACT: Hold eyelids open and immediately flush 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, rinse mouth with water immediately. DO NOT induce vomiting. Seek medical attention.

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:

Harmful - Keep out of reach of children.

Store in original container, tightly closed away from food, food related materials, animal feedstuffs, seed or fertilizer.

Wear eye protection. Impervious gloves should be worn at all times. Wear other personal protective equipment appropriate to the situation when handling product. Wash protective clothing daily after work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

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

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.

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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 available.
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 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. [Dodine technical]

ACUTE DERMAL: Acute dermal toxicity (rabbit) > 1500 mg/kg. [Dodine technical]

ACUTE INHALATION: No data.

OTHER TOXICITY INFORMATION:

- May be harmful if swallowed, inhaled or absorbed through the skin.
- May cause skin and eye irritation. Avoid contact with skin or eyes.
- 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 [Dodine technical]

Soil Toxicity: Not toxic to worms.

Terrestrial Vertebrates - Birds: Harmful to birds. LD50 Mallard Ducks: 1142 mg/kg [Dodine technical]

Terrestrial Invertebrates - Bees: Harmful to bees. LD50 Bees >0.11 mg/Kg. [Dodine technical]

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 empty container and add rinsate to the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot. Alternatively crush and bury in an approved landfill.

Dispose of product only by using according to this label, or at an approved disposal facility.

Avoid contamination of any water supply or stream with product or empty container.

14. TRANSPORT INFORMATION:

Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S (Dodine)		
UN Number:	3082	UN Hazard Class:	9
Packing Group:	III	Hazchem Code:	2X
Additional Information:	Do not carry more than 1 litre of this product on a passenger service vehicle.		

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.

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.

This product shall NOT be applied onto or into water.

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.

Approved pursuant to the HSNO Act 1996. NZ EPA Approval Code: HSR000494. See <www.epa.govt.nz> for controls.
Registered pursuant to the ACVM Act 1997. ACVM Pesticide No: P005873. See <www.nzfsa.govt.nz> for registration conditions.

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.