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

PRODUCT NAME: **DEFENCE 500**  
MANUFACTURER: Lonza NZ Ltd  
SUPPLIER NAME: Lonza NZ 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 4 917 9888  
CHEMICAL FAMILY: Dicarboximide USE: Fungicide

**2. HAZARDS IDENTIFICATION:**

6.5B; Harmful - may cause skin sensitization from prolonged skin contact. Avoid skin contact.  
6.9B; Harmful - may cause organ damage from repeated oral exposure at high doses.  
9.1A; Very toxic to fish with long-lasting effects.  
Refer to Section 15 for NZ EPA Requirements.

**3. COMPOSITION / INFORMATION ON INGREDIENTS:**

COMMON NAME:	CAS NUMBER:	CONCENTRATION %:	HAZARD CLASSIFICATIONS:
Iprodione	36734-19-7	>45%	Class 6, 9.
Propylene glycol	57-55-6	<5%	
Inerts		Balance	

**4. FIRST - AID MEASURES:**

EYE CONTACT: Immediately flush with flowing water for at least 15 minutes. Get medical attention if irritation persists.  
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 ill-effects occur, move the victim to fresh air. If ill effects persist, seek medical assistance.  
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-flammable. HAZCHEM CODE: 2X  
FLAMMABLE LIMITS: Not applicable  
EXTINGUISHING MEDIA: Foam, Carbon dioxide, Dry chemical or Water spray (fog). Prevent run-off from entering into any water supply.  
THERMAL DECOMPOSITION PRODUCTS: Include oxides of carbon, nitrogen and hydrogen chloride vapour.  
SPECIAL FIRE FIGHTING METHODS: Addition of water may cause excessive foaming. Vapours may be toxic. Self contained breathing apparatus required. Do not allow contaminated runoff to enter drains.  
UNUSUAL FIRE OR EXPLOSION HAZARDS: None.

**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. Store in accordance with NZS 8409 - Management of Agrichemicals.  
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 (TEL, or EEL's) have been specifically assigned for this product. WES set for Propane-1,2-diol [CAS 57-55-6] vapour & particulates: 150 ppm - 474 mg/m<sup>3</sup>.  
EYE PROTECTION: Chemical goggles or face shield where splash may occur.  
RESPIRATORY PROTECTION: Air respirator with organic vapour canister or self contained breathing apparatus when exposed to vapours from heated material.  
PROTECTIVE CLOTHING: If skin contact or contamination of clothing is likely, protective clothing should be worn.  
VENTILATION: General (mechanical) room ventilation is considered satisfactory.  
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: Cream suspension concentrate liquid.

BOILING POINT:	Not available.	pH:	5 - 7.5
DENSITY:	1.17	SETTING POINT:	Not available.
DECOMPOSITION TEMP:	Not available.	AUTOIGNITION TEMP:	Not applicable.
FLASHPOINT:	Not applicable.	VAPOUR DENSITY:	Not available.
EXPLOSION PROPERTIES:	Not applicable.	VAPOUR PRESSURE:	0.0005 mPa (25 C) - active ingredient.
SOLUBILITY:	13ppm [Iprodione] in water		

OTHER DATA:  
OCTANOL / WATER PARTITION COEFFICIENT: Not available.

**10. STABILITY AND REACTIVITY:**

CONDITIONS TO AVOID: None.  
MATERIALS TO AVOID: None.  
HAZARDOUS DECOMPOSITION: None.

**11. TOXICOLOGICAL INFORMATION:**

ACUTE ORAL: LD50 (4h) for rats >8000 mg/kg rats (by calculation).  
ACUTE DERMAL: LD50 for rats >8000 mg/kg (by calculation).  
ACUTE INHALATION: LC50 (4h) for rats >20 mg/L (by calculation).  
OTHER TOXICITY INFORMATION:

In rats, ruminants and birds, iprodione is rapidly eliminated. It also undergoes extensive metabolism, by hydrolysis and rearrangement reactions.  
May cause skin sensitization from prolonged skin contact. Avoid skin contact. May cause organ damage from repeated oral exposure at high doses.

**12. ECOLOGICAL INFORMATION:**

Aquatic Toxicity: Very toxic to fish. LC 50 (96 hr) for rainbow trout >15 mg/L.  
Soil Toxicity: Not harmful to the soil environment.  
Terrestrial Vertebrates - Birds: Not toxic to birds. LD50 mallard ducks >10,400 mg/kg.  
Terrestrial Invertebrates - Bees: Not toxic to bees.

Very Toxic to fish with long lasting effects. Avoid contamination of any water supply with this product or empty container.  
Rapidly metabolised in soil, with formation of CO<sub>2</sub>. Rate of degradation increases with successive treatments, hence accumulation does not occur.

**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 (Iprodione)  
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: 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.  
However, it may be handled by a person who is not an approved handler if:  
- an approved handler is present at the facility where the substance is being handled; and  
- the approved handler has provided guidance to the person in respect to the handling of the product; and  
- the approved handler is available at all times to provide assistance if necessary.

This product must NOT be applied onto or into water.

RECORD KEEPING: A written record of use is required if 3 kg or more of this 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 supply and leave the place where it is under control.  
The information must be kept for a minimum of three [3] years.

This product DOES NOT have Tracking Requirements.

Approved pursuant to the HSNO Act 1996. NZ EPA Approval Code: HSR100975 See <www.epa.govt.nz> for controls.  
Registered pursuant to the ACVM Act 1997. ACVM Pesticide No: P005807 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.