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

PRODUCT NAME: **FYFANON 440EW**  
 MANUFACTURER: Cheminova A/S  
 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: Organophosphate USE: Insecticide

## 2. HAZARDS IDENTIFICATION:

6.1D; Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.  
 6.3B; Harmful - may cause skin irritation. Avoid contact with skin.  
 6.4A; Harmful - may cause eye irritation. Avoid contact with eyes.  
 6.8B; Harmful - may cause reproductive/development damage from repeated oral exposure.  
 6.9A; Toxic - may cause organ damage from repeated oral exposure at high doses.  
 9.1A; Very toxic to fish/aquatic organisms with long-lasting effects.  
 9.3B; Toxic to terrestrial vertebrates [birds].  
 9.4A; Very Toxic to terrestrial invertebrates [bees].  
 Refer to Section 15 for NZ EPA Requirements.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS:

COMMON NAME:	CAS NUMBER:	CONCENTRATION %:	HAZARD CLASSIFICATIONS:
Inerts		Balance	
Malathion	121-75-5	440g/L	

## 4. FIRST - AID MEASURES:

EYE CONTACT: Hold eyelids open and immediately flush eyes with flowing water for at least 15 minutes. Get prompt medical or eye specialist attention.

SKIN CONTACT: Wash with plenty of soap and flowing water for at least 15 minutes while removing contaminated clothing. DO NOT scrub the skin. If irritation develops seek medical attention. 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.

## 5. FIRE FIGHTING MEASURES:

FLASHPOINT: Not flammable HAZCHEM CODE: 2X  
 FLAMMABLE LIMITS: Not available  
 EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam or carbon dioxide.  
 THERMAL DECOMPOSITION PRODUCTS: Thermal decomposition may release oxides of carbon, sulphur & phosphorous  
 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:

## 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: Flammable Liquid; Keep heat and ignition sources away from 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.

## 7. HANDLING AND STORAGE:

Toxic - Keep out of reach of children.  
 Store in a well ventilated place in original container, tightly closed away from foodstuffs.  
 Keep exposure to a minimum. Wear personal protective equipment appropriate to the situation when handling product, a minimum of eye protection, impervious gloves and coveralls should be worn at all times. Wash protective clothing daily after work.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: The Time Weighted Exposure [TWE] is set at: Malathion 10 mg/m<sup>3</sup>  
 The Acceptable Daily Intake [ADI] is set at: Malathion 0.02 mg/kg bw/day,  
 EYE PROTECTION: Avoid contact with eyes. Wear a face shield or full chemical workers goggles when using this product.  
 RESPIRATORY PROTECTION: For short term exposure to a small volume of mists or aerosols use a mask and filter eg. Filter A-P2 or a filter canister for organic vapours. Use self-contained breathing apparatus in the case of fire or during the formation of large volumes of mists or aerosols.  
 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: 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:	White Liquid	pH:	Slightly acidic
BOILING POINT:	Approx 100 °C	SETTING POINT:	Not available
DENSITY:	1.1 g/L	AUTOIGNITION TEMP:	Not available
DECOMPOSITION TEMP:	Not available	VAPOUR DENSITY:	Not available
FLASHPOINT:	Not flammable	VAPOUR PRESSURE:	2.37 kPa at 20 °C
EXPLOSION PROPERTIES:	Not available		
SOLUBILITY:	Product emulsifies in water.		
OTHER DATA:			
OCTANOL / WATER PARTITION COEFFICIENT:	Not available		

### 10. STABILITY AND REACTIVITY:

CONDITIONS TO AVOID:	Product will slowly degrade on storage, forming isomalathion which has a strong odour.
MATERIALS TO AVOID:	Avoid strong acids, strong bases, strong oxidising agents.
HAZARDOUS DECOMPOSITION	Thermal decomposition may release oxides of carbon, sulphur & phosphorous

### 11. TOXICOLOGICAL INFORMATION:

ACUTE ORAL:	LD50 Mice: 400 mg/Kg (Malathion)
ACUTE DERMAL:	
ACUTE INHALATION:	
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 reproductive/development damage from repeated oral exposure and organ damage from repeated oral exposure at high doses.
	Regular exposure may result in lowering of cholinesterase activity, typical symptoms are; numbness, tingling sensations, headache, dizziness, tremor, nausea, stomach cramps, sweating, difficulty breathing and slow heartbeat.

### 12. ECOLOGICAL INFORMATION:

Aquatic Toxicity: LC50 (96h) Brown trout;	0.1 mg/L (Malathion).
Terrestrial Vertebrates - Birds: LD50 Starlings;	100 mg/kg (Malathion).
Terrestrial Invertebrates - Bees: LD50;	0.71 µg/bee (Malathion).

Very toxic to fish/aquatic organisms with long-lasting effects. Avoid contamination of any water supply.  
Toxic to terrestrial vertebrates [birds].  
Very Toxic to bees - spray must not be applied to plants in flower if they are likely to be visited by 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 (Malathion)		
UN Number:	3082	UN Hazard Class:	9
Packing Group:	III	Hazchem Code:	2X
Additional Information:	IATA Special Provision A197 applies for containers 5L or less (not restricted).		

### 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.

Fyfanon shall NOT be applied onto or into water.

RECORD KEEPING: A written record of use is required if 200 ml 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 and leave the place where it is under control.  
The information must be kept for a minimum of three [3] years.

Approved pursuant to the HSNO Act 1996. NZ EPA Approval Code: HSR100380 See <www.epa.govt.nz> for controls.  
Registered pursuant to the ACVM Act 1997. ACVM Pesticide No: P008240 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.