



# DAVID GRAY & CO PTY LIMITED

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## MATERIAL SAFETY DATA SHEET

### IDENTIFICATION

HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA

**PRODUCT NAME:** Malathion ULV

**OTHER NAME:** Maldison , Fyfanon

**MANUFACTURERS CODE:** 24272 (5L) 24862 (20L)

**PROPER SHIPPING NAME (ADG Code):** Environmentally hazardous substance, liquid., (Malathion)

**UN NUMBER:** 3082

**DANGEROUS GOODS CLASS:** 9

**SUBSIDIARY-RISK:** None allocated

**PACKING GROUP:** III

**HAZCHEM CODE:** 2X

**POISONS SCHEDULE:** 6 Poison

**USE:** For the control of certain agricultural insect pests by aircraft equipped for ultra-low volume application. For the control of mosquitoes by ultra-low volume application, through suitably modified misting machines or dilute for application by fogging machine.

### PHYSICAL DESCRIPTION / PROPERTIES

**APPEARANCE:** Light yellow liquid

**MELTING POINT:** 2.85°C

**BOILING POINT:** 156°C

**VAPOUR PRESSURE:** 5.3mPa (30°C)

**DENSITY:** 1.23

**FLASH POINT:** Not applicable

**FLAMMABILITY LIMITS:** Not applicable

**SOLUBILITY IN WATER:** Not soluble

**CORROSIVENESS:** Corrosive to Iron

**OTHER PROPERTIES:** Not applicable

### INGREDIENTS

**CHEMICAL NAME**

Malathion

**CAS.NO.**

121-75-5

**PROPORTION**

1180g/L

## HEALTH HAZARD INFORMATION

### HEALTH EFFECTS

**HAZARD CLASSIFICATION (In accordance with criteria of Worksafe Australia):** Xn- Harmful

**RISK PHRASES:** R22 – Harmful if swallowed

**SAFETY PHRASES:** S24– After contact with skin.  
National Poisons Information Centre 131 126

#### GENERAL:

No adverse health effects are expected when the product is used in accordance with label directions. If mishandled (excessive exposure) may cause organophosphorus cholinesterase inhibition. Poisoning symptoms include headaches, dizziness, nausea, diarrhoea, incoordination, muscle twitching, tremors, abdominal cramps, tightness in chest, sweating, blurred vision, salivation, excessive urination and convulsions.

#### ACUTE

##### SWALLOWED:

The acute oral toxicity is Moderate. Oral LD50 (rat) 2800mg/kg (Malathion).  
For product Oral LD50 (rat) 2947mg/kg

##### EYE:

Moderate eye irritant.

##### SKIN:

The acute dermal toxicity is low, however repeated exposure may result in absorption of harmful amounts. Repeated skin contact may cause allergic reactions. Dermal LD50 (rabbit) 4100mg/kg (Malathion).  
For product LD50 > 4315mg/kg.

##### INHALED:

The acute inhalation toxicity is moderate. Excessive exposure to dust may be harmful. Prolonged exposure to the dust may cause eye and respiratory irritation, dizziness and headaches.  
Inhalation LD50 (rat) = 5.2 mg/m<sup>3</sup> (4 hours) (Malathion).

##### CHRONIC:

Repeated exposure may cause cholinesterase inhibition.  
Avoid prolonged or repeated skin contact as the solvent in the product may cause dermatitis.

### FIRST AID

#### GENERAL:

In every case of suspected poisoning contact a doctor or a Poisons Information Centre immediately.

**SWALLOWED:**

Seek medical attention immediately. If more than 15 minutes from medical assistance, give one atropine tablet every 5 minutes until dryness of mouth occurs then seek medical attention immediately. **NOTE:** Do not give fluids/tablets if patient is unconscious or convulsing.

**EYE:**

Hold eyelids open and flush eyes with water for at least fifteen minutes. Seek medical attention immediately.

**SKIN:**

Immediately remove contaminated clothing and wash skin thoroughly with soap and water for at least fifteen minutes. If symptoms of poisoning occur give atropine tablets as above and seek medical attention immediately.

**INHALED:**

Immediately remove patient to fresh air. If difficulty in breathing is experienced, give oxygen and artificial respiration if necessary. If symptoms of poisoning occur, seek medical assistance immediately.

**FIRST AID FACILITIES:**

Soap, water, Ipecac Syrup APF, Atropine tablets.

**ADVICE TO DOCTOR:**

Malathion is a cholinesterase inhibitor. Preferred antidote: atropine by injection or atrovent/ipratropium by airway puff. This product contains petroleum type solvents and the benefits of induced vomiting must be weighed against possibility of chemical poisoning.

## PRECAUTIONS FOR USE

**EXPOSURE STANDARDS:**

Worksafe Occupational Exposure Standard (TWA – Time Weighted Average)

Malathion – 10mg/m<sup>3</sup>

Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

**ENGINEERING CONTROLS:**

Prepare spray in a well-ventilated area away from ignition sources. Use only in a well ventilated area. Not recommended for indoor use.

**PERSONAL PROTECTION:**

When handling the concentrate, preparing and using spray wear chemical resistant overalls with hood (or a washable hat) buttoned to the neck and wrists, elbow length PVC neoprene or nitrile gloves, goggles or faceshield and a half faced respirator with organic vapour cartridge.

Remove contaminated clothing immediately after use and wash separately and thoroughly. Wash hands, face and arms immediately after use and before eating and drinking.

**FLAMMABILITY:**

Product is not classified as flammable, however is combustible and will burn if involved in a fire.

## SAFE HANDLING INFORMATION

### STORAGE

Store closed in the original container, in a cool, well dry place out of direct sunlight and out of the reach of children. Do not store prepared spray. Only mix what is required.

### TRANSPORT

Product is classified as a dangerous good in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**CORRECT SHIPPING NAME:** Environmentally hazardous substance liquid, (Malathion)

**UN NUMBER:** 3082

**DANGEROUS GOODS CLASS:** Class 9 Miscellaneous

**SUB-CLASS:** None Allocated

**PACKING GROUP:** III

### SPILLAGE

Wear appropriate clothing while cleaning up spill (see Personal Protection). Extinguish any ignition sources. Prevent entry into drainage systems, waterways, rivers, etc. Apply absorbent material such as sand, earth or attapulgite to contain the spill. Sweep up the material when absorption is complete. Wash contaminated surfaces with a mild bleach solution (sodium hypochlorite).

### DISPOSAL

Disposal of contaminated material must be done in accordance with State and/or Local regulations. Triple rinse containers with water and add rinsings to tank mix. Destroy empty containers by breaking, crushing or puncturing them. Dispose of the empty containers at a local authority landfill. Do not burn empty containers or product. Do not allow chemical containers, spray or washings to contaminate drains, sewers, streams, ponds or any waterway.

### FIRE/EXPLOSION HAZARD

Hazchem: 2WE

Malathion will decompose rapidly when heated to temperatures above 100°C. Explosion may result under certain circumstances. If involved in a fire, volatile, toxic, malodorous and flammable compounds will be formed

#### HAZARDOUS DECOMPOSITION PRODUCTS:

If involved in a fire, thermal decomposition products may include dimethyl sulfide, sulphur dioxide, carbon monoxide, carbon dioxide, phosphorous pentoxide and nitrogen oxides.

If store for long periods above 55°C, toxic degradation products such as malaoxon and isomalathion may be formed.

#### FIRE FIGHTING EQUIPMENT:

Foam, carbon dioxide (CO<sub>2</sub>), or dry chemical extinguishers may be used. Run-off must be contained. Full personal protective equipment, including self contained breathing apparatus, is required.

<b>OTHER INFORMATION</b>
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**ECOTOXICITY DATA:**

Malathion is toxic to fish and bees.

**ENVIRONMENTAL FATE:**

Malathion is biodegradable, subject to hydrolysis (breakdown in water) and photodegradation (breakdown in sunlight). Degradation is accelerated in alkaline or acidic conditions. The half life in soil is reported to be approximately 6 days on average, depending on soil conditions, temperature and pH. It is not expected to bioconcentrate in animal or aquatic organisms. It moderately binds to soils and therefore is not expected to leach into ground water.

**CONTACT POINT**

**TITLE:** Technical Department

**TELEPHONE NUMBER:** (08) 9337 4933

**AUTHORISED:**

**DATE:**

**NOTICE:**

This Material Safety Data Sheet has been developed according to the Worksafe Australia/NOHSC Codes of Practice.

The information contained herein is given in good faith however and is considered to be accurate at the specified issue date. No warranty expressed or implied is made to the accuracy or completeness of the data and information contained herein.

No person, other than an authorised representative of David Gray & Company Pty Ltd, has the authority to make any alterations to this MSDS.

Contact David Gray & Co Pty Limited for further product information on (08) 9337 4933 during normal business hours.