

**BRIGHT RESOURCE TECHNOLOGY SDN. BHD.**

(Co. No.: 517165-A)

**No. 11-2, Jalan Meranti SD 13/4,**

**Bandar Sri Damansara,**

**52200 Kuala Lumpur, Malaysia**

**Tel.: 603-6272167858 Fax: 603-6272 9528**

## **SAFETY DATA SHEET**

**MALATHION 96% ULV W/V**

CAS Number: 121-75-5

**Trade Name: D-MALATHION 96 UL**

**Chemical Name:** Diethyl (dimethoxythiophosphorylthio) succinate; S-1,2-bis (ethoxycarbonyl) ethyl O,O-dimethyl phosphorodithioate (IUPAC)

**Chemical Formula:** C<sub>10</sub>H<sub>19</sub>O<sub>6</sub>PS<sub>2</sub>

**Molecular Weight:** 330.3

### **1. Substance/ Preparation and company identification**

**Chemical nature:** Manufacturer of Agrochemicals/ Alkyl Phenols/ Fine chemicals

**Distributor:** Bright Resource Technology Sdn. Bhd  
No.11-2, Jalan Meranti SD 13/4,  
Bandar Sri Damansara,  
52200 Kuala Lumpur.  
Tel: 03-62721678 Faks: 03-6272 9528

### **2. COMPOSITION/ INFORMATION ON INGREDIENTS**

S.No	Ingredient	Concentration
i.	<b>MALATHION</b>	<b>96.00% Minimum</b>
ii.	Other relevant impurities	<b>04.00% Maximum</b>

### **3. HAZARDS IDENTIFICATION**

#### **GHS Label elements, including precautionary statements**

Warning

#### **Hazard Statements**

H315 – Causes skin irritation

H320 – Causes eye irritation

H400 – Very toxic to aquatic life

H410 – Very toxic to aquatic life with long lasting effects



**Precautionary Statements- Prevention**

P264 – Wash hands thoroughly after handling

P280 – Wear protective gloves

P237 – Avoid release to environment

**Precautionary Statements- Response**

P308 + P313 – If response or concerned: Get medical advice/ attention

P305 + P351 + P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 +P313- If eye irritation persists. Get medical advice/ attention

P302 + P352- IF ON SKIN: Wash with plenty of water and soap

P333 + P313- If skin irritation or rash occurs: Get medical advice/ attention

P363- Wash contaminated clothing before reuse

P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 – Immediately call a POISON CENTER or doctor

P301 + P312- IF SWALLOWED: Call a poison center or doctor if you feel unwell

P391 – Collect spillage

**Precautionary Statements- Storage**

P405 – Store locked up

P403 + P233- Store in a well- ventilated place. Keep container tightly closed.

**Precautionary Statement: Disposal**

P501- Dispose of contents/ container according to label directions

**Other Information**

Very toxic to aquatic life with long lasting effects.

**4. FIRST AID MEASURES**

**Ingestion:** Get medical attention immediately. Drink plenty of water. In case of vomiting, beware of suffocation. Do not induce vomiting, unless you are First Aid Staff. Give nothing by mouth in case of unconsciousness or convulsions.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses. If present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

**Inhalation:** Move person from contaminated area to fresh air. Seek medical attention immediately. If person is not breathing, give artificial respiration, preferably by mouth to mouth. If possible.

**Most important symptoms and effects, both acute and delayed:** Malathion is a cholinesterase inhibitor affecting the central and peripheral nervous systems producing respiratory depression

**5. FIRE FIGHTING MEASURES**

Suitable Extinguishing Media                      Dry powder, CO<sub>2</sub>, Halon Water spray, Foam

Unsuitable Extinguishing Media                      N/A

**Special firefighting procedures:**

Smoke and fumes from fire may contain hazardous components. Use self-contained breathing apparatus and full protective clothing. Fight fire from upwind side. Avoid run-off. Keep non-essential personnel away from immediate fire area, and out of any fall out or run off areas. If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eyes protection.

**Environmental Precautions:** Contain the spill to prevent any further contamination of surface, soil or water. Try to prevent the material from entering drains or water courses.

**Methods of cleaning:** Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Sweep up and shovel into suitable containers for disposal. For a water spill, confine the spill immediately with booms. Notify the appropriate authorities as required. Carefully cover spilled material with soda ash or quicklime to neutralize. Do not flush into surface water or sanitary sewer system. For large spills on surfaces other than pavement (e.g. soil or sand), spills may be handled by digging up and removing the affected surface and placing it in approved containers.

**7. HANDLING AND STORAGE****Handling**

Keep away from open flames, hot surfaces and sources of ignition. Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Handle product only in closed system or provide appropriated exhaust ventilation at machinery. Remove and ash contaminated clothing before re-use. Wash thoroughly after handling.

**Storage**

Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children and animals. Keep away from food, drink and animal feeding stuffs. Keep/ store only in original container. Keep in properly labeled containers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Technical protective measures None

Exposure control limits Avoid breathing toxic vapor

Personal Protective Equipment:

**Eye and face protections:** Wear suitable goggles or face protection

**Skin protection:** wear overalls and closed footwear's

**Hand protection:** Use appropriate protective gloves

**Respiratory protection:** Use respirator.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : Light yellow liquid

**Odor** : Slightly aromatic odour

**Density** : 1.23 at 25 °C

**Viscosity** : 30.0 cP at 25 °C

**Flash point** : > 325 °F

**Auto ignition** : None  
**Solubility in water** : Malathion is soluble in most organic solvents such as aromatic hydrocarbons, esters and alcohols. It is moderately soluble in aliphatic hydrocarbons.  
**Heat Stability** : Stable  
**Cold Stability** : Stable  
**pH** : When equal amounts of malathion and distilled water are dispersed at 20 °C, the pH measured in the water phase is 3.7-3.8

## 10. STABILITY AND REACTIVITY

Thermal stability : Decompose  
Chemical stability : Stable  
Conditions to avoid : Never heat above 55 °C and also avoid local heating above this temperature  
Materials to avoid : Alkaline metals and oxidizing agents  
Hazardous Decomposition Products : Thermal decomposition products may include toxic oxides of carbon, Sulphur and phosphorus.

## 11. TOXICOLOGICAL INFORMATION

**Acute LD50 Oral Rat** : 2931 mg/kg  
**Acute LD50 Dermal Rat** : > 2000 mg/kg  
**Acute LC50 Inhalation** : LC50 (94 h) rat >2.12 mg/L air  
**Skin irritation Rabbit** : Slightly irritating  
**Eye irritation rabbit** : Slightly irritating  
**Sensitisation** : Not a skin sensitizer  
**Carcinogenicity** : None  
**Mutagenicity** : None  
**Reproductive Toxicity** : None

## 12. ECOLOGICAL INFORMATION

**Fish toxicity:** Acute LC50 (96 h): 12.70 mg /L brown trout, 0.1mg/l bluegill sunfish, 0.28 mg/l largemouth bass  
**Daphnia toxicity:** Acute LC50 (24 h): 0.88 ug/L for *Daphnia magna*  
**Bird toxicity:** Acute oral LD50:167 ppm  
**Bee toxicity:** Toxic to bees. LD50 (topical) 0.71 µg/bee.  
**% Biodegradability:** 95 in 1 year  
**Sewage Toxicity:** Toxic

## 13. DISPOSAL CONSIDERATION

### Waste Disposal Methods

Improper disposal of excess pesticides, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, must be worn while handling materials for waste disposal.

### Contaminated Packaging

Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

#### 14. TRANSPORT INFORMATION

<b>Hazard Class (N.O.S)</b>	: 6.1
<b>UN No</b>	: 3017
<b>Marine Pollutant</b>	: YES
<b>IATA Packing Instructions</b>	: III
<b>Shipping Description</b>	: Organophosphorus pesticides, liquid, toxic, flammable
<b>First Aid Code</b>	: Not Available

#### 15. REGULATORY INFORMATION

Classification	Harmful, Toxic
Risk Phrases	R22 Harmful if swallowed R25 Toxic to aquatic organism R53 May cause long term adverse effects in the aquatic environment
Safety Phrases	S2 Keep out of reach of children S13 Keep away from food, drink and animal feedings S36 Wear suitable protective clothing S56 Dispose of this material and its container to hazardous or special waste collection point S62 if swallowed, do not induce vomiting, seek medical advice immediately and show this container label.

#### 16. OTHER INFORMATION

Incompatible with Alkaline Material

Remark: This product should be stored, handled and used in accordance with good industrial practices and in conformity with legal regulation. This information is based on our present knowledge for your guidance on safety requirement. It is not intended as a specification.

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