



# Bonide Malathion Insect Control

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : Bonide Malathion Insect Control  
Product code : 499

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Insecticide

#### 1.3. Details of the supplier of the safety data sheet

Bonide Products, LLC  
6301 Sutliff Road  
Oriskany, NY 13424

Telephone Number: (315) 736-8231

Comment: Bonide hours of operation are 8:00 a.m. to 4:30 p.m EST.

Website: [www.bonide.com](http://www.bonide.com)

Email address: [sales@bonide.com](mailto:sales@bonide.com)

#### 1.4. Emergency telephone numbers (24 hour)

Medical : SafetyCall - (833) 972-1101  
Spills : CHEMTREC - 1 (800) 424-9300 and/or 1 (703) 527-3887

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Flammable Liquid 3 H226  
Acute Toxicity - Oral 4 H302  
Sensitisation, skin 1 H317  
Eye Irritation 2B H320  
Carcinogenicity 2 H351  
Aquatic Toxicity Chronic 2 H411

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H226 - Flammable liquid and vapor  
H302 - Harmful if swallowed  
H317 - May cause an allergic skin reaction  
H320 - Causes eye irritation  
H351 - Suspected of causing cancer (inhalation)  
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P203 - Obtain, read and follow all safety instructions before use.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion proof equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P317 - IF SWALLOWED: Get medical help  
P330 - Rinse mouth.

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P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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+P317 - If eye irritation persists: Get medical help.  
P370+P378 - In case of fire: Use foam or dry powder to extinguish.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P321 - Specific treatment (see on this label)  
P332+P317 - If skin irritation occurs: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to in accordance with local/regional/national regulations.

### SECTION 3: Composition/information on ingredients

#### Mixture

Name	Product identifier (CAS No)	%
Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing $\leq 0.03$ % isomalathion]	121-75-5	50
Solvent naphtha (petroleum), light aromatic	64742-95-6	< 45*
Naphtha, heavy aromatic	64742-94-5	< 1*

\*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).  
First-aid measures after inhalation : Assure fresh air breathing. Allow the person to rest.  
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.  
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.  
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.  
Symptoms/injuries after skin contact : May cause moderate irritation.  
Symptoms/injuries after eye contact : Causes eye irritation.  
Symptoms/injuries after ingestion : Single dose oral toxicity is moderate; however, ingestion of larger amounts may cause serious injury.  
Chronic symptoms : Repeated exposure to cholinesterase inhibitors may, without warning, cause increased susceptibility to doses of any other cholinesterase inhibitor. Kidney and liver damage is possible from exposure to xylenes over long periods.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physician: Malathion is a cholinesterase inhibitor. ANTIDOTE: Administer atropine sulphate in large doses. Two to Four mg intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinisation appear. 2-Pam chloride is a pharmacological antidote and may be administered as an adjunct to, but not a substitute for atropine. Do not give morphine or tranquilizers. At first sign of pulmonary edema, patient should be given supplemental oxygen and treated symptomatically. Continued absorption of Malathion may occur after initial improvement. Very close supervision of patient is indicated for at least 48 hours.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.  
Explosion hazard : May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges.

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Keep away from ignition sources. Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from children. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Combustible materials. Sources of ignition. Heat sources.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)**

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
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#### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear approved mask.

Other information : When using, do not eat, drink or smoke.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Free-flowing liquid.

Color : Light straw colored.

Odor : Strong aromatic odor.

Odor threshold : No data available

pH : 2.9

Melting point : No data available

Freezing point : No data available

Boiling point : > 300°F (>148.9 °C) Min.

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Flash point	: 112 °F (44.4 °C)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.06
Solubility	: Emulsifies. Active ingredient essentially insoluble.
Viscosity	: No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions. Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Extremely high or low temperatures. Open flame. Sunlight.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

The product has not been tested. The following statements have been derived from the properties of the individual components.

Acute toxicity : Not classified

Naphtha, heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	8400 mg/kg

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
LD50 oral rat	5500 mg/kg
LD50 dermal rat	≥ 2000 mg/kg
LD50 dermal rabbit	4100 mg/kg (Rabbit)
ATE (oral)	500.000 mg/kg body weight

Skin corrosion/irritation	: Not classified, pH: 2.9
Eye damage/irritation	: Causes eye irritation, pH: 2.9
Respiratory	: Not classified
Skin sensitization	: May cause an allergic skin reaction
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer (inhalation)

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
IARC group	2A - Probably Carcinogenic to Humans

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
IARC group	2A - Probably Carcinogenic to Humans

IARC (International Agency for Research on Cancer)

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

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Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after skin contact	: May cause moderate irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Single dose oral toxicity is moderate; however, ingestion of larger amounts may cause serious injury.
Chronic symptoms	: Repeated exposure to cholinesterase inhibitors may, without warning, cause increased susceptibility to doses of any other cholinesterase inhibitor. Kidney and liver damage is possible from exposure to xylenes over long periods.

## SECTION 12: Ecological information

### 12.1. Toxicity

Naphtha,heavy aromatic (64742-94-5)	
LC50 fish 1	2.1 - 4.2 mg/l (96 h; Lepomis macrochirus; Fresh water)
EC50 Daphnia 1	0.95 mg/l (48 h; Daphnia magna)
LC50 fish 2	2.34 mg/l (96 h; Oncorhynchus mykiss)
Threshold limit algae 1	1 mg/l (72 h; Skeletonema costatum; Growth)

  

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
LC50 fish 1	0.10 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 1	0.0008 mg/l (48 h; Daphnia pulex)
LC50 fish 2	0.17 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	0.00036 mg/l (384 h; Daphnia magna)
TLM fish 1	0.24 mg/l (96 h; Phoxinus phoxinus; Pure water)
TLM fish 2	0.09 ppm (96 h; Lepomis macrochirus)

### 12.2. Persistence and degradability

Bonide Malathion Insect Control	
Persistence and degradability	Not established.

  

Naphtha,heavy aromatic (64742-94-5)	
Persistence and degradability	Not readily biodegradable in water.

  

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
Persistence and degradability	Not established.

  

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
Persistence and degradability	Biodegradable in the soil.

### 12.3. Bioaccumulative potential

Bonide Malathion Insect Control	
Bioaccumulative potential	Not established.

  

Naphtha,heavy aromatic (64742-94-5)	
Log Pow	2.9 - 6.1
Bioaccumulative potential	Bioaccumable.

  

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
Log Pow	2.1 - 6
Bioaccumulative potential	Not established.

  

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
Log Pow	2.36 - 2.89
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

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<b>Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)</b>	
Surface tension	0.037 N/m (24 °C)
Ecology - soil	Toxic to bees. Not toxic to plants.

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to in accordance with local/regional/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

DOT: Not regulated

TDG: UN1993, Flammable Liquid, N.O.S. (petroleum naphtha, light aromatic), Limited Quantity, 3, III

## SECTION 15: Regulatory information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wear long sleeved shirt, long pants, shoes and socks.

## SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012) - Pesticides

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*