



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, Inc.
6301 Sutliff Road
Oriskany, NY 13424
T (315) 736-8231
www.bonide.com

1.4. Emergency telephone number

Emergency number : 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)

Flam. Liq. 2 H225

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor
Precautionary statements (GHS-US) : P210 - Keep away from heat/open flames/sparks.. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P280 - Wear gloves
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to in accordance with local/regional/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier	%	Classification (GHS-US)
Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion]	(CAS No) 121-75-5	50	Skin Sens. 1, H317
Solvent naphtha (petroleum), light aromatic	(CAS No) 64742-95-6	43	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304

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Name	Product identifier	%	Classification (GHS-US)
Naphtha,heavy aromatic	(CAS No) 64742-94-5	0.91	Skin Irrit. 2, H315 Asp. Tox. 1, H304
Naphthalene	(CAS No) 91-20-3	0.07 - 0.105	Acute Tox. 4 (Oral), H302 Carc. 1B, H350

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

No additional information available

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.
- 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.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Naphthalene (91-20-3)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	10 ppm

Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)		
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³

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
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : 112 °F
- Self ignition temperature : No data available
- 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.
- Log Pow : No data available

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Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information 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.

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

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)

Naphthalene (91-20-3)	
LD50 oral rat	1100 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)

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

Serious eye damage/irritation : Not classified
pH: 2.9

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Naphthalene (91-20-3)	
IARC group	2B - Possibly Carcinogenic to Humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

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Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
IARC group	3 - Not Classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
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)
Naphthalene (91-20-3)	
LC50 fish 1	1.99 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	2.16 mg/l (48 h; Daphnia magna)
EC50 other aquatic organisms 1	2.96 mg/l (4 h; Selenastrum capricornutum)
LC50 fish 2	0.11 mg/l (96 h; Oncorhynchus mykiss)
TLM fish 1	150 mg/l (96 h; Lepomis macrochirus; Cool water)
TLM fish 2	1.24 ppm (96 h; Oncorhynchus gorbuscha)
Threshold limit algae 1	0.4 mg/l (72 h; Skeletonema costatum; Growth rate)
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.
Naphthalene (91-20-3)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O ₂ /g substance
Chemical oxygen demand (COD)	0.22 g O ₂ /g substance
ThOD	2.99 g O ₂ /g substance
BOD (% of ThOD)	0 % ThOD

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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.
Naphthalene (91-20-3)	
BCF fish 1	23 - 168 (Cyprinus carpio; Test duration: 8 weeks)
BCF fish 2	40 - 300 (672 h; Oncorhynchus mykiss)
BCF other aquatic organisms 1	331 (360 h; Ostreidae)
BCF other aquatic organisms 2	130 (24 h; Chlorella sp.)
Log Pow	3.30 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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

Naphthalene (91-20-3)	
Surface tension	0.03 N/m (100 °C)
Malathion (ISO), 1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate, [containing ≤ 0.03 % isomalathion] (121-75-5)	
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

In accordance with DOT
No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

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.

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Causes moderate eye irritation.

15.1. US Federal regulations

No additional information available

15.2. International regulations

15.2.2. National regulations

Naphthalene (91-20-3)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

Naphthalene (91-20-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes				

Naphthalene (91-20-3)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Flam. Liq. 2	Flammable liquids Category 2
Muta. 1B	Germ cell mutagenicity Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H340	May cause genetic defects
H350	May cause cancer

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.