

Material Safety Data Sheet  
May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be consulted  
for specific requirements.

U.S. Department of Labor  
Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

## IDENTITY (As Used on Label and List) Bonide Malathion 50% Insect Control

**ID No. 499**  
Date: March 10, 2008

### Section I

Bonide Products, Inc.  
6301 Sutliff Road  
Oriskany, NY 13424

(800) 424-9300  
(315) 736-8231

### Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH	TLV	Other Limits	% (Optional)
Malathion: O,O-Dimethyl Phosphorothioate of Diethyl Mercaptosuccinate CAS No. 121-75-5	15 mg/M3		10 mg/M3		

### Section III - Physical/Chemical Characteristics

BOILING POINT: ND                      SPECIFIC GRAVITY (water=1): 1.06                      pH: ND  
MELTING POINT: ND                      BULK DENSITY (lbs/cu.ft.): NA  
SOLUBILITY IN WATER: Emulsifies. Active ingredient essentially insoluble.  
APPEARANCE & ODOR: Light straw colored , free-flowing liquid with strong, aromatic odor.

### Section IV - Fire and Explosion Hazard Data

FLASH POINT (Method used): ND                      LEL: ND                      UEL: ND  
NFPA/HMIS Rating: Health: 2                      Fire: 1                      Reactivity: 0  
EXTINGUISHING MEDIA: Foam, Water Spray, CO2, Dry Chemical FLAMMABLE LIMITS: ND  
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers cool by spraying with water if exposed to fire. Fight fire upwind. Avoid heavy hose streams. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.  
UNUSUAL FIRE & EXPLOSION HAZARDS: Essential breakdown products are: dimethyl sulfide, sulfur dioxide, carbon monoxide, carbon dioxide, phosphorus pentoxide and nitrogen oxides.

### Section V - Reactivity Data

STABILITY: Stable                      INCOMPATIBILITY: Alkaline materials and strong oxidizers.  
CONDITIONS TO AVOID: High temperatures, open flame, alkaline materials.  
HAZARDOUS DECOMPOSITION PRODUCTS: Dimethyl sulfide, sulfur dioxide, carbon monoxide, carbon dioxide, phosphorus pentoxide, nitrogen oxides.  
HAZARDOUS POLYMERIZATION: Will not occur

### Section VI - Health Hazard Data

ROUTES OF ENTRY: Skin, eyes, inhalation, ingestion.  
SIGNS AND SYMPTOMS OF EXPOSURE:  
Acute: Active ingredient is a cholinesterase inhibitor of low mammalian toxicity. May cause eye and/or skin irritation. Vapors may irritate eyes. Prolonged skin and/or eye contact may result in material being absorbed in harmful amounts. Single dose oral toxicity is moderate: however, ingestion of larger amounts may cause serious injury. Inhalation of excessive amounts may cause upper respiratory tract irritation. Symptoms include headaches, dizziness, incoordination, drowsiness and unconsciousness.  
Chronic: 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 VI - Health Hazard Data (cont'd)

#### EMERGENCY AND FIRST AID PROCEDURE:

INHALATION: Remove to fresh air. Consult a physician if symptoms or irritation develops.

SKIN: Remove any contaminated clothing. Wash skin with soap and water. Call a physician if irritation persists. Launder clothing before reuse.

INGESTION: Do not induce vomiting. call a physician and/or transport to an emergency facility.

EYES: Irrigate immediately and continuously for 15 minutes. Consult a physician.

CARCINOGENICITY: NE NTP: NE

IARC MONOGRAPHS: NE OSHA REGULATED: NE

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Any disease, medication, or prior exposure which reduces normal cholinesterase activity may increase the susceptibility to the toxic effect of the active ingredient.

NOTE TO PHYSICIAN: Active ingredient is a cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. Atropine sulfate in large doses is an antidote. Two to four mg intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minutes intervals until signs of atropinization appear. 2-PAM chlonde is a pharmacological antidote and may be administered as an adjunct to, but not a substitute for atropine, which is a symptomatic and often lifesaving antidote.

DO NOT GIVE MORPHINE OR TRANQUILLIZERS. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of malathion may occur and relapse may occur after initial improvement.

**Very close supervision of the patient is indicated for at least 48 hours.**

## Section VII - Precautions for Safe Handling and Use

HANDLING PRECAUTIONS: Do not take internally. Avoid contact with skin, eyes and clothing. Wash after handling. Do not contaminate water by disposal of equipment washwaters.

STORAGE: Store in a cool, dry place out of reach of children and animals.

PERSONAL PROTECTIONS:

Protective Equipment(Outdoors applications): Impervious gloves, Impervious boots, eye goggles/safety glasses, clean clothing.

Protective Equipment(Confined Areas): Sufficient Ventilation, Respirator (use NIOSH/MSHA approved), Splash Goggles/Safety glasses, eyewash station.

## Section VIII - Environmental and Disposal Information

SPILL OR LEAK PROCEDURES: Wear protective equipment. Small spills should be absorbed on inert materials such as sand, absorbent clay, sawdust or other absorbent material. Prevent entry into water. Sweep or scoop into proper labeled containers for disposal. Large spills should be diked then treated in same manner as small spills.

WASTE DISPOSAL METHODS: Dispose according to EPA procedures as outlined in RCRA. Follow local and state requirements.

ENVIRONMENTAL HAZARDS: This product is toxic to fish, bees, aquatic invertebrates and aquatic life stages of amphibians.

## Section IX- Regulatory Information

SARA information: SARA TITALE III: SEC. 311/312 HAZARD CATEGORIES

Immediate (Acute) Health: Y

Sudden Release of Pressure: N

Delayed (Chronic) Health: Y

Reactivity: N

## Section X - Toxicological Information

Toxicity: Active ingredient in laboratory tests has been shown to be slightly irritation to eyes and skin, nor a skin sensitizer (guinea pigs), not carcinogenic, not teratogenic (rats and rabbits), not mutagenic and shows no reproductive effects (rabbits and rats).

Positive Teratogen/Mutagen/Carcinogen (NTP): No

Potential Carcinogen (IARC/OSHA): No

## Section XI - Other Information

DOT Shipping information:

Proper Shipping Name: Environmentally hazardous Substances, Liquid, N.O.S. (Malathion), Class 9, UN 3082, PG III, Marine Pollutant.

I.D. No.: UN3082

Hazard Class: NA

Hazmat No.: Na

SEC. 302: NA

SEC. 304: NA

SEC. 313: YES

SARA Title III - Section 313 Supplier Notification: This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) or 1986 and 40 CFR 372:

Chemical: Aromatic Hydrocarbon

CAS No. 98-82-8

Percent in Mixture: 32.9

This information must be included on all MSDS'S that are copied and distributed for this material:

Other Environmental Information: Section 313 Chemicals: Aromatic hydrocarbon contains the following reportable ingredients:

Trimethylbenzene CAS No. 95-63-6

Curnene CAS No. 98-82-8

Xylene CAS No. 1330-20-7

Ethylbenzene CAS No. 100-41-4

CERCLA: RQ=100lbs (malation)

CAA: NA

## KEEP OUT OF REACH OF CHILDREN

### ABBREVIATION KEY

N/A: NOT AVAILABLE OR APPLICABLE

N/E: NOT ESTABLISHED

ND: Not Determined

TLV: THRESHOLD LIMIT VALUE

TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY

STEL: SHORT TERM EXPOSURE LIMIT

D.O.T.: DEPARTMENT OF TRANSPORTATION

### DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.