

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 Pyrethrin Garden Insect Spray Concentrate

ID # 4371
Date: July 1, 2009

Section I

Bonide Products, Inc.	(800) 424-9300
6301 Sutliff Road	(315) 736-8231
Oriskany, NY 13424	

Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Pyrethrins	8003-34-7		None Est.	1.00%
Piperonyl butoxide	51-03-6		None Est.	10.00%

Exposure Limits: Pyrethrum: PEL 5 mg/m³ (OSHA)
TLV 10 mg/m³ (ACGIH)

Section III - Physical/Chemical Ingredients

PHYSICAL STATE: Liquid	VAPOR PRESSURE: <2 mmHg @ 25°C
VAPOR DENSITY (AIR=1): >5 (Air=1)	SPECIFIC GRAVITY: 0.850 – 0.875
SOLUBILITY: Oil-soluble; Water-Soluble	EVAPORATION RATE: <0.1 (-Butyl Acetate=1)
APPEARANCE: Thin, light yellow, clear liquid	ODOR: Very mild

Section IV - Fire and Explosion Data

FLAMMABLE PROPERTIES: FLASHPOINT: 198°F TCC
EXTINGUISHING MEDIA: Foam, carbon dioxide, waterfog and dry chemical
FIRE FIGHTING INSTRUCTIONS: Use self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Cool fire-exposed areas and equipment. Do not use direct stream of water. Material may float and reignite.

Section V - Reactivity Data

STABILITY: Stable
CONDITIONS TO AVOID (STABILITY): None
HAZARDOUS DECOMPOSITION PRODUCTS: None known
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBLE MATERIALS: Strong oxidizing agents

Section VI - Health Hazard Information

EMERGENCY OVERVIEW:
Thin, light yellow, liquid that is:
*Harmful if swallowed or absorbed through skin.
*Toxic to fish.

PRIMARY ROUTE(S) OF ENTRY: Oral, inhalation, skin and eye contact.

EYES: non-irritating.
SKIN: Harmful if absorbed through skin.
INGESTION: Harmful if swallowed.

CHRONIC (Cancer information): See Section 11 for carcinogenic/oncogenic information on piperonyl butoxide.

SIGNS AND SYMPTOMS: May cause gastrointestinal effects such as nausea, vomiting and diarrhea. Ingestion of large quantities can result in nervous system effects such as dizziness, loss of coordination, tremors and loss of consciousness. Symptoms usually regress with no long lasting effects.

Section VII - First Aid Information

IF SWALLOWED – Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF INHALED – Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

IF IN EYES – Hold eye 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.

IF ON SKIN OR CLOTHING –Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

Section VIII - Accidental Release Measures

Soak up with an absorbent material such as sand, sawdust, earth, and fuller's earth. Dispose of with chemical waste.

Section IX - Handling and Storage

HANDLING PRECAUTIONS: Avoid contact with eye and skin. Avoid breathing vapor or spray mist. Do not apply directly to food. In commercial food handling facilities, cover or remove food and food processing equipment before application. Do not apply while food processing is underway. Remove pets and birds and cover fish aquaria before spraying.

STORAGE PRECAUTIONS: Store upright at room temperature. Avoid exposure to extreme temperatures.

Containers Smaller Than One Gallon: Store in original container in a cool dry place inaccessible to children and pets.

WORK/HYGIENIC PRACTICES: Wash hands, arms and face with soap and water after handling and before eating or smoking. Wash contaminated clothing with soap and hot water before reuse.

After space spraying in meat packing plants, bakeries and all other food processing plants, wash all equipment thoroughly with a suitable detergent and rinse with potable water (benches, shelving, etc.) where exposed food will be handled. All food processing surfaces should be covered during treatment or thoroughly washed before reuse.

Section X - Exposure Controls/Personal Protection

EYE/FACE PROTECTION: Safety glasses or goggles.

SKIN PROTECTION: Rubber or impervious gloves.

RESPIRATORY PROTECTION: Pesticide respirator jointly approved by the Mining Enforcement and Safety administration and by the National Instituted for Occupational, Safety and Health under the provisions of 30 CFR 11

Section XI - Toxicological Information

TOXICOLOGICAL INFORMATION:

EYE EFFECTS: Non-irritating

ACUTE ORAL EFFECTS: LD50 > 3,000 mg/kg

SKIN EFFECTS: Irritation: Very slightly irritating

ACUTE INHALATION EFFECTS: LC₅₀>7.5 mg/L air

ACUTE STUDIES: This information was sourced from previous MSDS (prepared 5/22/91).

CHRONIC (CANCER INFORMATION): In a recent study, marginally higher incidences of benign thyroid, parathyroid, ovary and liver tumors were observed in rats and in lungs of mice following lifetime high dose exposures to pyrethrum. Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to piperonyl butoxide.

The significance of these observations is questionable and under review. The doses at which tumors were observed for both pyrethrum and PBO greatly exceeded potential human exposure from labeled uses.

CARCINOGENICITY: NTP: No IARC: No OSHA: No

TERATOGENICITY (BIRTH DEFECTS): There were no birth defects or adverse effects on reproductive parameters in test with rats or rabbits for either pyrethrum or piperonyl butoxide. They are not considered to be teratogenic.

MUTAGENICITY (GENETIC EFFECTS): Pyrethrum was not found to be genotoxic and did not damage DNA in any study conducted (Ames mutagenicity assay, chromosome aberration in chinese hamster ovaries (CHO) cells, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

PBO was not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberration in chinese

hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

Section XII - Ecological Information

OTHER ENVIRONMENTAL INFORMATION: This product is toxic to fish. Do not apply directly to lakes, streams, ponds, tidal marshes or estuaries. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning or equipment or disposal of wastes.

Section XIII - Disposal Considerations

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINERS DISPOSAL (LARGER THAN ONE GALLON): Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONTAINER DISPOSAL (ONE GALLON AND SMALLER): Store in original container in a cool dry place inaccessible to children and pets. Do not reuse container. Wrap container in several layers of newspaper and discard in trash.

Section IX - Transport Information

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins)

HAZARD CLASS: 9, PG III **DOT IDENTIFICATION NUMBER:** UN3082

DOT SHIPPING LABEL: Class 9

ADDITIONAL SHIPPING PAPER DESCRIPTION: RQ (Pyrethrins)

NOTE: This product is not regulated by DOT in quantities less than 30 gallons.

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

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