



Bonide Duel Action Bedbug Room Fogger

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 Duel Action Bedbug Room Fogger
Product code : 102116744

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)

Acute Tox. 4 (Inhalation) H332
Flam. aerosol 2 H223
Gases under pressure H280
Skin corrosion/irritation 2 H315

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated
H223 - Flammable aerosol
H332 - Harmful if inhaled
H315 - Causes skin irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements Prevention (GHS-US) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P211 - Do not spray on an open flame or other ignition source
P251 - Pressurized container: Do not pierce or burn, even after use
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves

Precautionary Statements - Response: P321 - Specific treatment (see Section 4/ First Aid).
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage/Disposal: P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 54.4°C/ 130.0°F
P403 - Store in a well-ventilated place
P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

No additional information available

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier	%
Piperonyl butoxide	(CAS No) 51-03-6	0.10
N-Octyl Ibicycloheptene Dicarboximide	(CAS No) 113-48-4	0.16
2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine NYLAR®	(CAS No) 95737-68-1	0.10
Pyrethrins	(CAS No) 8003-34-7	0.05
Esfenvalerate	(CAS No) 66230-04-4	0.10
Petroleum distillates, hydrotreated light	(CAS No) 64742-47-8	< 10 *
Propane	(CAS No) 74-98-6	10 <---> 20*
Isobutane	(CAS No) 75-28-5	10 <---> 20*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

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 where possible).
- First-aid measures after inhalation : Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Consult a doctor/medical service if you feel unwell.
- First-aid measures after eye contact : 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. Call a poison control center or doctor for treatment advice.
- First-aid measures after ingestion : If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.
- Self-protection of the First Responder : Remove all sources of ignition. Use personal protective equipment as required.

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

- Symptoms/injuries : May cause genetic defects.
- Symptoms/injuries after inhalation : May cause cancer by inhalation.

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

For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

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 : Combustible liquid.
- 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.

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

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.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from ignition sources. - No smoking.
Precautions for safe handling : Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. For more information, see product label..

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. For more information, see product label
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pyrethrins
8003-34-7
TWA: 5 mg/m³ TWA: 5 mg/m³
(vacated) TWA: 5 mg/m³
IDLH: 5000 mg/m³
TWA: 5 mg/m³
-
Petroleum distillates,
hydrotreated light
64742-47-8
- - - TWA: 100 ppm
TWA: 525 mg/m³
Propane
74-98-6
TWA: 1000 ppm TWA: 1000 ppm
TWA: 1800 mg/m³
(vacated) TWA: 1000 ppm
(vacated) TWA: 1800 mg/m³
IDLH: 2100 ppm
TWA: 1000 ppm
TWA: 1800 mg/m³
-
Isobutane
75-28-5
STEL: 1000 ppm - TWA: 800 ppm
TWA: 1900 mg/m³

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

-
NIOSH IDLH Immediately Dangerous to Life or Health

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
Color	: Milky emulsion.
Odor	: Solvent odor.
Odor threshold	: No data available
pH	: 7.1
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	: > 93.3
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	: 0.969
Solubility	: Immiscible in water.
Log Pow	: No data available
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.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures. Open flame. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Pyrethrins (8003-34-7)	
LD50 oral rat	200 mg/kg (Rat)
LC50 inhalation rat (mg/l)	3.4 mg/l/4h (Rat)

LD50 oral rat	
LD50 dermal rat	
LD50 dermal rabbit	

Isopar-m (64742-47-8)	
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Literature)

Skin corrosion/irritation : Not classified
pH: 7.1

Serious eye damage/irritation : Not classified
pH: 7.1

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : May cause genetic defects.

Carcinogenicity : May cause cancer.

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 inhalation : May cause cancer by inhalation.

SECTION 12: Ecological information

12.1. Toxicity

Pyrethrins (8003-34-7)	
LC50 fish 1	0.049 mg/l (96 h; <i>Lepomis macrochirus</i>)
LC50 other aquatic organisms 1	0.011 mg/l (96 h; <i>Gammarus</i> sp.)
LC50 fish 2	0.009 mg/l (96 h; <i>Ictalurus punctatus</i>)
Threshold limit other aquatic organisms 1	0.011 mg/l (96 h; <i>Gammarus</i> sp.)

LC50 fish 1	0.0025 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	0.00043 mg/l (48 h; <i>Daphnia magna</i> ; Enzyme effect)
LC50 fish 2	0.016 mg/l (96 h; <i>Pimephales promelas</i>)
EC50 Daphnia 2	0.290 mg/l (24 h; <i>Lymnaea</i> sp.)

Isopar-m (64742-47-8)	
LC50 fish 1	> 100 mg/l (Pisces)
EC50 Daphnia 1	> 100 mg/l (Invertebrata)
Threshold limit algae 1	> 100 mg/l (Algae)

12.2. Persistence and degradability

Bonide Duel Action Bedbug Room Fogger	
Persistence and degradability	Not established.

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

Pyrethrins (8003-34-7)	
Persistence and degradability	Readily biodegradable in water.
Isopar-m (64742-47-8)	
Persistence and degradability	Readily biodegradable in water. Adsorbs into the soil.
Ethylhexylbicycloheptene Dicarboximide (113-48-4)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Bonide Duel Action Bedbug Room Fogger	
Bioaccumulative potential	Not established.
Pyrethrins (8003-34-7)	
Log Pow	6.15 (Estimated value)
BCF fish 1	560 <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
BCF fish 2	480 (<i>Cyprinodon variegatus</i>)
BCF other aquatic organisms 1	0.1 mg/l (>24 h; Algae)
BCF other aquatic organisms 2	1900 (<i>Ostreidae</i>)
Log Pow	3.48 - 6.5
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
Isopar-m (64742-47-8)	
Log Pow	6 - 8.2
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
Ethylhexylbicycloheptene Dicarboximide (113-48-4)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Pyrethrins (8003-34-7)	
Ecology - soil	Not toxic to plants. Toxic to bees.
Ecology - soil	Toxic to bees.
Isopar-m (64742-47-8)	
Surface tension	0.026 N/m (20 °C)

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.
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

Breathing spray mist may be harmful.

Bonide Duel Action Bedbug Room Fogger

Safety Data Sheet

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

Harmful if absorbed through the skin.

Causes moderate eye irritation.

15.1. US Federal regulations

No additional information available

15.2. International regulations

No additional information available

15.3. US State regulations

pyrethrins (8003-34-7)

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. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 4	Flammable liquids Category 4
Muta. 1B	Germ cell mutagenicity Category 1B
H220	Extremely flammable gas
H227	Combustible liquid
H301	Toxic if swallowed
H331	Toxic if inhaled
H340	May cause genetic defects
H350	May cause cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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.