



# Bonide Infuse Systemic Disease Control Lawn & Landscape

## 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 Infuse Systemic Disease Control Lawn & Landscape  
Product code : 538831834

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

Use of the substance/mixture : Fungicide

#### 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)

Carcinogenicity 1A H350  
Specific Target Organ Toxicity - Repeated Exposure 1 H372

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Danger  
Hazard statements (GHS-US) : H350 - May cause cancer (inhalation)  
H372 - Causes damage to organs (lungs/respiratory system) through prolonged and repeated exposure  
Precautionary statements (GHS-US) : P203 - Obtain read and follow all safety instructions before use.  
P260 - Do not breath dust.  
P264 - Wash thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear gloves/eye protection/protective clothing  
P318 - If exposed or concerned, get medical advice/attention.  
P405 - Store locked up  
P501 - Dispose of contents/container to in accordance with local/regional/federal regulations

### SECTION 3: Composition/information on ingredients

#### Mixture

Name	Product identifier	%
Thiophanate-methyl	(CAS No) 23564-05-8	2.08
Dolomite Limestone (contains)	(CAS No) 16389-88-1	0 - 99.0*
Crystalline silica	(CAS No) 14808-60-7	0 - 15.0*

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

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### 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 : Assure fresh air breathing. Allow the person to rest.
- 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. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- 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

Mild mechanical eye irritation. Repeated inhalation may cause silicosis or cancer.

#### 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

Thermal decomposition may produce oxides of carbon, nitrogen, calcium and magnesium.

#### 5.3. Advice for firefighters

- Firefighting instructions : Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off.
- Protection during firefighting : Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear)..

### SECTION 6: Accidental release measures

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

##### 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 : On land, sweep or shovel into suitable containers. **Avoid creating and inhalation of dust.** Store away from other materials.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- 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. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

- Storage conditions : Protect from moisture. Store in original container. Keep container closed when not in use. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.
- Product incompatibilities : Hydrofluoric acid. Strong oxidizers.

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

#### Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Crystalline silica	250 mppcf/%SiO <sub>2</sub> +5 (STEL) 10 mg/m <sup>3</sup> /%SiO <sub>2</sub> +2 (STEL)	0.025 mg/m <sup>3</sup> (TWA)	0.05 mg/m <sup>3</sup> (TWA)

#### Engineering Controls:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

#### 8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
Eye protection	: Chemical goggles or safety glasses and full-face shield.
Respiratory protection	: Wear approved NIOSH N95 mask.
Other information	: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.  Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Tan granulars.
Color	: Tan solid granule.
Odor	: Faint sulfur
Odor threshold	: No data available
pH (1% dispersion)	: 5.0 - 5.5
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	: Not applicable
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: Not applicable
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Bulk Density	: 0.469 g/mL
Solubility	: No data available
Viscosity	: Not applicable

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Dolomitic limestone dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen trifluoride.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No potential for hazardous reactions known unless mixed with incompatible substances.

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### 10.4. Conditions to avoid

Extremely high temperatures.

### 10.5. Incompatible materials

Hydrofluoric acid. Strong oxidizers.

### 10.6. Hazardous decomposition products

Thermal decomposition may produce oxides of carbon, nitrogen, calcium and magnesium.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Mild mechanical eye irritation.
Oral LD50:	>5,000 mg/kg (rat)(Based upon similar product)
Dermal LD50:	>5,000 mg/kg (rabbit)(Based upon similar product)
Inhalation LC50:	>5.0 mg/L (4-hour)(rat)(Based upon similar product)
Eye Irritation/Damage:	Not anticipated to cause eye irritation. Based upon similar product.
Skin Corrosion/Irritation:	Not anticipated to cause skin irritation. Based upon similar product.
Skin Sensitization:	Not anticipated to cause skin sensitization. Based upon similar product.

### Chronic/Subchronic Toxicity:

Crystalline silica is known to cause silicosis after repeated inhalation. There are three types of silicosis: 1) simple chronic silicosis – results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica; 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica.

Mutagenicity:	No data available
Reproductive Toxicity:	No data available
Neurotoxicity:	No data available
Target Organs:	Lungs, respiratory system
Aspiration Hazard:	Not anticipated to be an aspiration hazard.
Carcinogenicity:	See below.

Chemical Name	ACGIH	IARC	NTP	OSHA
Crystalline silica	Group 1	Known Human Carcinogens		

## SECTION 12: Ecological information

### 12.1. Toxicity

Thiophanate-methyl (23564-05-8)	
LC50 fish 1	11 mg/l (48 h; Cyprinus carpio)
LC50 fish 2	13.4 mg/l 72 h; Salmo gairdneri (Oncorhynchus mykiss)

### 12.2. Persistence and degradability

Bonide Infuse Systemic Disease Control Lawn & Landscape	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

Thiophanate-methyl (23564-05-8)	
Ecology - soil	Not toxic to plants. Not toxic to bees.

### 12.5. Other adverse effects

Other information : Do not apply directly to water, or areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste disposal recommendations : Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.
- Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

Not regulated for transport by DOT

### 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: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt, long pants, and shoes with socks.

#### 15.1. US Federal regulations

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Chronic (Delayed)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
Thiophanate-methyl	23564-05-8	2.08%

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
Thiophanate-methyl	23564-05-8	10 lbs	480.8 lbs

#### 15.2. US State regulations

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
Crystalline silica	14808-60-7	Cancer
Thiophanate-methyl	23564-05-8	Reproductive

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Thiophanate-methyl	X	X	X
Crystalline silica	X	X	X

### 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.*