## 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, 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)**
  - Skin Sens. 1: H317
  - Muta. 2: H341

### 2.2. Label elements
- **GHS-US labeling**
- **Hazard pictograms (GHS-US)**
  - ![GHS07](image)
  - ![GHS08](image)
- **Signal word (GHS-US)**: Warning
- **Hazard statements (GHS-US)**:
  - H317 - May cause an allergic skin reaction
  - H341 - Suspected of causing genetic defects
- **Precautionary statements (GHS-US)**:
  - P201 - Obtain special instructions before use
  - P202 - Do not handle until all safety precautions have been read and understood
  - P261 - Avoid breathing dust
  - P272 - Contaminated work clothing should not be allowed out of the workplace
  - P280 - Wear gloves/eye protection/protective clothing
  - P302+P352 - IF ON SKIN: Wash with plenty of soap and water
  - P308+P313 - IF exposed or concerned: Get medical advice/attention
  - P321 - Specific treatment (see First Aid Section on this label)
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
  - P362+P364 - Take off contaminated clothing and wash it before reuse
  - P405 - Store locked up
  - P501 - Dispose of contents/container to in accordance with local/regional/federal 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**

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Revision date: 02/19/2018
EN (English US)
Name | Product identifier | % | Classification (GHS-US)
--- | --- | --- | ---
Thiophanate-methyl | (CAS No) 23564-05-8 | 2.08 | Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

### 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

- **Symptoms/injuries**: Suspected of causing genetic defects.
- **Symptoms/injuries after inhalation**: May cause an allergic skin reaction.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Unsuitable extinguishing media: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

### SECTION 6: Accidental release measures

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

- **For non-emergency personnel**: Evacuate unnecessary personnel.
- **For emergency responders**: Equip cleanup crew with proper protection. 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. Minimize generation of dust. 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

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.

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

No additional information available

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: Solid

Appearance: Tan granulars.

Color: Tan solid granule.

Odor: Negligible.

Odor threshold: No data available

pH: No data available

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: No data available

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: No data available

Density: 35-40 lbs./cu.ft

Solubility: No data available

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
### 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.

#### 10.5. Incompatible materials
Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

**Thiophanate-methyl (23564-05-8)**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>7500 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 10000 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 10000 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>

| Skin corrosion/irritation   | Not classified            |
| Serious eye damage/irritation| Not classified            |
| Respiratory or skin sensitization| May cause an allergic skin reaction. |
| Germ cell mutagenicity      | Suspected of causing genetic defects. |
| Carcinogenicity             | Not classified            |
| 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 an allergic skin reaction. |

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Thiophanate-methyl (23564-05-8)**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>11 mg/l (48 h; Cyprinus carpio)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>13.4 mg/l 72 h; Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**Bonide Infuse Systemic Disease Control Lawn & Landscape**

| Persistence and degradability | Not established. |

#### 12.3. Bioaccumulative potential

**Bonide Infuse Systemic Disease Control Lawn & Landscape**

| Bioaccumulative potential | Not established. |
## 12.4.  Mobility in soil

<table>
<thead>
<tr>
<th>Thiophanate-methyl (23564-05-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - soil</td>
</tr>
</tbody>
</table>

## 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 ...  
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - waste materials</td>
</tr>
</tbody>
</table>

### 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: 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

No additional information available

#### 15.2.  International regulations

No additional information available

#### 15.3.  US State regulations

California – Prop 65 - NOTICE: This product can expose you to chemicals including Thiophanate-methyl, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

### SECTION 16: Other information

Other information: None.

Full text of H--phrases: see section 16:

- **Acute Tox. 4 (Inhalation:dust,mist)**: Acute toxicity (inhalation:dust,mist) Category 4
- **Aquatic Acute 1**: Hazardous to the aquatic environment - Acute Hazard Category 1
- **Aquatic Chronic 1**: Hazardous to the aquatic environment - Chronic Hazard Category 1
- **Muta. 2**: Germ cell mutagenicity Category 2
- **Skin Sens. 1**: Skin sensitization Category 1
- **H317**: May cause an allergic skin reaction
- **H332**: Harmful if inhaled
- **H341**: Suspected of causing genetic defects
- **H400**: Very toxic to aquatic life
- **H410**: Very toxic to aquatic life with long lasting effects

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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.