Bonide Rose Shield Concentrate
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 Rose Shield Concentrate
Product code: 10013674

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Fungicide
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)
Not classified

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US):

Signal word (GHS-US): Warning
Hazard statements (GHS-US):
H320 - Causes eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US):
P260 - Do not breathe mist
P271 - Use only outdoors or in a well-ventilated area
P264 - Wash hands and face thoroughly after handling
P304 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P405 - Store locked up
P501 - Dispose of contents/container to in accordance with local/national 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difenoconazole</td>
<td>(CAS No) 119446-68-3</td>
<td>0.66</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
Bonide Rose Shield Concentrate
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<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiamethoxam</td>
<td>(CAS No) 153719-23-4</td>
<td>0.4</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>Lambda-cyhalothrin</td>
<td>(CAS No) 91465-08-6</td>
<td>0.16</td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 2 (Inhalation:dust,mist), H390</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

**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.

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 : Drowsiness or dizziness.

Symptoms/injuries after inhalation : Respiratory irritation.

Symptoms/injuries after skin contact : May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

Symptoms/injuries after eye contact : Eye irritation.

**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**

Fire hazard : During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3. **Advice for firefighters**

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

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**

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.

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
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.

### 7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: 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

<table>
<thead>
<tr>
<th>Bonide Rose Shield Concentrate</th>
<th>DNEL</th>
<th>DNEL</th>
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<tr>
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<td>&lt;</td>
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</tbody>
</table>

### 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
- Appearance: Clear to slightly hazy yellow liquid.
- Color: Clear to slightly yellow.
- Odor: Minimal, if any.
- Odor threshold: No data available
- pH: 4.5 - 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: 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: 1.05
- 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

### 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.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Thiamethoxam (153719-23-4)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1563 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg (Rat)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 3.7 mg/l/4h (Rat)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Serious eye damage/irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single exposure)
Specific target organ toxicity (repeated exposure)
Aspiration hazard

Thiamethoxam (153719-23-4)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 100 mg/l 96 h: Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 100 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>&gt; 114 mg/l (96 h; Lepomis macrochirus)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 119 mg/l (96 h; Ostreidae)</td>
</tr>
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</table>

Potential Adverse human health effects and symptoms
Symptoms/injuries after inhalation
Symptoms/injuries after skin contact
Symptoms/injuries after eye contact

Aspiration hazard

Thiamethoxam (153719-23-4)

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Potential Adverse human health effects and symptoms
Symptoms/injuries after inhalation
Symptoms/injuries after skin contact
Symptoms/injuries after eye contact

SECTION 12: Ecological information

12.1. Toxicity

Thiamethoxam (153719-23-4)

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12.2. Persistence and degradability

Bonide Rose Shield Concentrate
Persistence and degradability

Not established.
**Bonide Rose Shield Concentrate**

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**12.3. Bioaccumulative potential**

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<tbody>
<tr>
<td>Lambda-cyhalothrin (91465-08-6)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Thiamethoxam (153719-23-4)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

No additional information available.

**12.5. Other adverse effects**

Other information: Avoid release to the environment.

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**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.

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**SECTION 14: Transport information**

In accordance with DOT

No dangerous good in sense of transport regulations

**Additional information**

Other information: No supplementary information available.

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**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:** Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid breathing vapor or spray mist. Remove and wash contaminated clothing before reuse. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**15.1. US Federal regulations**

No additional information available

**15.2. International regulations**

No additional information available

**15.3. US State regulations**

No additional information available

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**SECTION 16: Other information**

Other information: None.

Full text of H-phrases: see section 16:

- **Acute Tox. 2 (Inhalation:dust,mist)**: Acute toxicity (inhalation:dust,mist) Category 2
- **Acute Tox. 3 (Oral)**: Acute toxicity (oral) Category 3
- **Acute Tox. 4 (Dermal)**: Acute toxicity (dermal) Category 4
- **Acute Tox. 4 (Oral)**: Acute toxicity (oral) 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
- **H301**: Toxic if swallowed
- **H302**: Harmful if swallowed
- **H312**: Harmful in contact with skin
- **H330**: Fatal if inhaled
- **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.