Bonide Liquid Orchid Food 9-7-9 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 Bonide Liquid Orchid Food 9-7-9 Concentrate
Product code : 105

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Fertilizer

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
No labeling applicable

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Polyphosphate</td>
<td>(CAS No) 68333-79-9</td>
<td>18.9</td>
<td>Not classified</td>
</tr>
<tr>
<td>Muriate of Potash</td>
<td>(CAS No) 7447-40-7</td>
<td>14.5</td>
<td>Not classified</td>
</tr>
<tr>
<td>Urea</td>
<td>(CAS No) 57-13-6</td>
<td>15</td>
<td>Not classified</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 : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after eye contact : Severe irritation.

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

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. Notify authorities if liquid enters sewers or 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.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in original container. Keep container closed when not in use. Protect from moisture.
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: Liquid
Appearance: Green Liquid
Color: Green
Odor: Mild fertilizer
# Bonide Liquid Orchid Food 9-7-9 Concentrate

## Safety Data Sheet

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### Odor threshold
- No data available

### pH
- 6 - 7.5

### Relative evaporation rate (butyl acetate=1)
- No data available

### Melting point
- No data available

### Freezing point
- No data available

### Boiling point
- > 212 °F

### 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
- 1.16

### Solubility
- Soluble 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.

### 10.5. Incompatible materials

Strong oxidizers, alkaline materials, bromine trifluoride, potassium permanganate, sulfuric acid.

### 10.6. Hazardous decomposition products

Ammonia, Cyanic acid.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity
- Not classified

<table>
<thead>
<tr>
<th>Urea (57-13-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>8471 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 3200 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 21000 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ammonium Ployphosphate (68333-79-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
- Not classified
- pH: 6 - 7.5

Revision date: 04/20/2016

EN (English US)
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<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 7.5</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potential Adverse human health effects and symptoms</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>Severe irritation.</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1. Toxicity

**Urea (57-13-6)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 6810 mg/l (96 h; Leuciscus idus)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>17500 mg/l (96 h; Poecilia reticulata)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 10000 mg/l (24 h; Daphnia magna)</td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>17500 ppm (96 h; Poecilia reticulata)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>120000 mg/l (16 h; Bacteria; Toxicity test)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 2</td>
<td>&gt; 10000 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>&gt; 10000 mg/l (168 h; Scenedesmus quadricauda)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**Bonide Liquid Orchid Food 9-7-9 Concentrate**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

**Urea (57-13-6)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Inherently biodegradable. Hydrolysis in water.</td>
</tr>
<tr>
<td>ThOD</td>
<td>0.27 g O²/g substance</td>
</tr>
</tbody>
</table>

**Ammonium Ployphosphate (68333-79-9)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradability in water: no data available. No (test)data on mobility of the components available.</td>
</tr>
</tbody>
</table>

**Muriate of Potash (7447-40-7)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradability in water: no data available. No (test)data on mobility of the components available.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

**Bonide Liquid Orchid Food 9-7-9 Concentrate**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

**Urea (57-13-6)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>1 (72 h; Brachydanio rerio; Fresh water)</td>
</tr>
<tr>
<td>BCF other aquatic organisms 1</td>
<td>11700 (Chlorella sp.)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-2.59 - -1.59</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Bioaccumulation: not applicable.</td>
</tr>
</tbody>
</table>

**Ammonium Ployphosphate (68333-79-9)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>No bioaccumulation data available.</td>
</tr>
</tbody>
</table>

**Muriate of Potash (7447-40-7)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>No bioaccumulation data available.</td>
</tr>
</tbody>
</table>
# Bonide Liquid Orchid Food 9-7-9 Concentrate

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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

<table>
<thead>
<tr>
<th>Other information</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

## 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

<table>
<thead>
<tr>
<th>In accordance with DOT</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No dangerous good in sense of transport regulations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional information

| Other information |  | No supplementary information available. |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| Bonide Liquid Orchid Food 9-7-9 Concentrate |  | Not listed on the United States TSCA (Toxic Substances Control Act) inventory |

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

No additional information available

## 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.