SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: Revenge Equine Fly Spray Ready to Use
Product code: 102118174

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)
Flam. Liq. 4 H227

2.2. Label elements
GHS-US labeling
Signal word (GHS-US): Warning
Hazard statements (GHS-US): H227 - Combustible liquid
Precautionary statements (GHS-US): P210 - Keep away from sparks/open flames. - No smoking
P280 - Wear gloves
P370+P378 - In case of fire: Use foam, carbon dioxide, waterfog and dry chemical for extinction
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to in accordance with local/regional/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>N-Octyl bicycloheptene dicarboximide</td>
<td>(CAS No) 113-48-4</td>
<td>0.48</td>
<td>Not classified</td>
</tr>
<tr>
<td>Permethrin</td>
<td>(CAS No) 52645-53-1</td>
<td>0.20</td>
<td>Skin Irrit. 2, H315</td>
</tr>
</tbody>
</table>
| Pyrethrin                           | (CAS No) 8003-34-7  | 0.10 | Acute Tox. 3 (Oral), H301
|                                    |                    |    | Acute Tox. 3 (Inhalation:vapour), H331          |

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 for 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.
Revenge Equine Fly Spray Ready to Use

Safety Data Sheet

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

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.

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

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.

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

Additional hazards when processed: Handle empty containers with care because residual vapors are flammable. Keep away from children. - No smoking.

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. No naked lights. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from children. Keep container closed when not in use. Keep in fireproof place.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pyrethrins (8003-34-7)

<table>
<thead>
<tr>
<th>USA ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

Revision date: 02/23/2016  EN (English US)  2/5
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: White to light yellow.
Odor: Characteristic.
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: 240 °F
Relative density: 0.99 - 1
Solubility: Soluble in water.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established. Combustible liquid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid


10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases.

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)

Permethrin (52645-53-1)

LD50 oral rat > 383 mg/kg (Rat)
LD50 dermal rat 4000 mg/kg (Rat)
LD50 dermal rabbit > 2000 mg/kg (Rabbit)

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
### Carcinogenicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin (52645-53-1)</td>
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<table>
<thead>
<tr>
<th>IARC group</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Not Classifiable</td>
</tr>
</tbody>
</table>

### Toxicity

**Pyrethrins (8003-34-7)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.049 mg/l (96 h; Lepomis macrochirus)</td>
</tr>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>0.011 mg/l (96 h; Gammarus sp.)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>0.009 mg/l (96 h; Ictalurus punctatus)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>0.011 mg/l (96 h; Gammarus sp.)</td>
</tr>
</tbody>
</table>

**Permethrin (52645-53-1)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.0025 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.00043 mg/l (48 h; Daphnia magna; Enzyme effect)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>0.016 mg/l (96 h; Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>0.290 mg/l (24 h; Lymnaea sp.)</td>
</tr>
</tbody>
</table>

**N-Octyl bicycloheptene dicarboximide (113-48-4)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>6.15 (Estimated value)</td>
</tr>
</tbody>
</table>

### Persistence and degradability

**Revenge Equine Fly Spray Ready to Use**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin (52645-53-1)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Pyrethrins (8003-34-7)</td>
<td>Readily biodegradable in water.</td>
</tr>
</tbody>
</table>

**N-Octyl bicycloheptene dicarboximide (113-48-4)**

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<tr>
<th>Compound</th>
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</table>

### Bioaccumulative potential

**Revenge Equine Fly Spray Ready to Use**

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<th>Compound</th>
<th>Bioaccumulative potential</th>
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</thead>
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**N-Octyl bicycloheptene dicarboximide (113-48-4)**

<table>
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<tr>
<th>Compound</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin (52645-53-1)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

### Mobility in soil

**Pyrethrins (8003-34-7)**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Ecology - soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin (52645-53-1)</td>
<td>Toxic to bees.</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 in accordance with local/regional/national regulations.

Additional information: Handle empty containers with care because residual vapors are flammable.

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: KEEP UT OF REACH OF CHILDREN
Harmful if absorbed through skin.

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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Inhalation:vapour)</td>
<td>Acute toxicity (inhalation:vapour) Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral) Category 3</td>
</tr>
<tr>
<td>Flam. Liq. 4</td>
<td>Flammable liquids Category 4</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>H227</td>
<td>Flammable liquid</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
</tbody>
</table>

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.