Section 1: Identification

Product identifier

Product Name: Brandt InsectStop EC 123
Synonyms: EPA Reg. No.: 89459-31-48813
Product Description: Yellow to amber colored liquid.

Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Insecticide.
Restrictions on use: KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with eyes, skin and clothing. Do not use or store near heat or open flame. Avoid release to the environment. Do not take internally.

Details of the supplier of the safety data sheet

Manufacturer: Brandt Consolidated, Inc.
2935 S. Koke Mill Road
Springfield, IL 62711
Phone: 217-547-5800
United States
www.brandt.co

Emergency telephone number

Manufacturer (Transportation): 1-800-424-9300 - CHEMTREC
Manufacturer (Transportation): 1-703-527-3887 - Chemtrec - Outside US collect calls accepted

Section 2: Hazard Identification

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012
- Aspiration 1
- Flammable Liquids 4
- Skin Irritation 2
- Skin Sensitization 1
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
DANGER

Hazard statements
- Causes skin irritation
- May be fatal if swallowed and enters airways
- May cause an allergic skin reaction
- Combustible liquid
- May cause drowsiness or dizziness

Precautionary statements

Prevention
- Wash thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid breathing dust, fume, gas, mist, vapors and/or spray.
- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
- Use only outdoors or in a well-ventilated area.

Response
- IF ON SKIN: Wash with plenty of soap and water.
- Specific treatment, see supplemental first aid information.
- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash before reuse.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Do NOT induce vomiting.
- In case of fire: Use appropriate media for extinction.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Storage/Disposal
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Store in a well-ventilated place. Keep cool.
- Store locked up.

Other hazards

- This product is toxic to aquatic organisms, including fish and invertebrates. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.
Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins</td>
<td>CAS:8003-34-7</td>
<td>1%</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>CAS:51-03-6</td>
<td>2%</td>
</tr>
<tr>
<td>N-Octyl Bicycloheptene Dicarboximide</td>
<td>CAS:113-48-4</td>
<td>2.94%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>CAS:64742-47-8</td>
<td>93.93%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>NDA</td>
<td>0.13%</td>
</tr>
</tbody>
</table>

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor for further treatment advice.

Skin

IF ON SKIN: Wash with plenty of soap and water. If irritation or rash occurs, get medical advice/attention.

Eye

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Immediately call a poison control center or doctor. Aspiration hazard - if swallowed, do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Aspiration hazard; causes skin irritation, may cause an allergic skin reaction in individuals with a sensitivity to piperonyl butoxide, may cause dizziness and/or drowsiness if inhaled. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

• Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media

• LARGE FIRE: Water spray, fog or regular foam.
  • SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media

• Avoid heavy hose streams.
Firefighting Procedures
• Do not allow fire fighting water to escape into waterways or sewers.
  LARGE FIRES: Dike fire control water for later disposal; do not scatter the material.
  LARGE FIRES: Move containers from fire area if you can do it without risk.
  Stay upwind.
  Ventilate closed spaces before entering.
  Do not breathe gas/fumes/vapor/spray.

Special hazards arising from the substance or mixture
Unusual Fire and Explosion Hazards
• Combustible liquid.
  Containers may explode when heated.
  Liquid will float and may re-ignite on surface of water.

Hazardous Combustion Products
• Combustible liquid - may produce carbon dioxide and/or carbon monoxide.

Advice for firefighters
• Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Do not walk through spilled material. Ventilate enclosed areas. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Avoid release into the environment.

Environmental precautions

LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures
Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of spill for later disposal. Stop leak if you can do it without risk.

Section 7 - Handling and Storage

Precautions for safe handling

Handling
• Keep away from fire - No Smoking. Avoid breathing fumes. Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact.

Conditions for safe storage, including any incompatibilities

Storage
• Store locked up. Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources. Keep from freezing. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Incompatible Materials or Ignition Sources
Heat, sparks, open flame.

Other Information
See product label for additional information.

Section 8 - Exposure Controls/Personal Protection

Control parameters
Exposure Limits/Guidelines
• No data available.

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Exposure Limits/Guidelines</th>
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</thead>
<tbody>
<tr>
<td>Result</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Pyrethrins (8003-34-7)</td>
<td>TWAs</td>
</tr>
</tbody>
</table>

Exposure Limits Supplemental
ACGIH
Pyrethrins (8003-34-7): TLV Basis - Critical Effects: (liver damage; lower respiratory tract irritation)

Exposure controls
Engineering
• Use adequate ventilation to remove vapors (fumes, dust, etc.)

Measures/Controls
Personal Protective Equipment

Pictograms

Respiratory
• In case of insufficient ventilation, wear suitable respiratory equipment. Not required with normal use. However, mixers, loaders, applicators and other handlers must wear respiratory protection with P or R filters.

Eye/Face
• Wear chemical splash safety goggles.

Hands
• Wear appropriate gloves.

Skin/Body
• If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Environmental Exposure Controls
• Refer to Section 13 - Disposal Considerations.
### Section 9 - Physical and Chemical Properties

#### Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Form</strong></td>
<td><strong>Appearance/Description</strong></td>
</tr>
<tr>
<td>Liquid</td>
<td>Yellow to amber liquid.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td>Yellow to amber.</td>
<td>Pleasant woodsy.</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td>No data available</td>
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</table>

<table>
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<tr>
<th><strong>General Properties</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Boiling Point</strong></td>
<td><strong>Melting Point/Freezing Point</strong></td>
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<td>No data available</td>
<td>No data available</td>
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<tr>
<td><strong>Decomposition Temperature</strong></td>
<td><strong>pH</strong></td>
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<td>No data available</td>
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<tr>
<td><strong>Specific Gravity/Relative Density</strong></td>
<td><strong>Density</strong></td>
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<tr>
<td>6.62 lb/gal (0.79 g/cc)</td>
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<td><strong>Water Solubility</strong></td>
<td><strong>Viscosity</strong></td>
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<td>Insoluble</td>
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<td><strong>Critical Temperature</strong></td>
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<tr>
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</table>

<table>
<thead>
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<th><strong>Volutility</strong></th>
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</thead>
<tbody>
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<td><strong>Vapor Pressure</strong></td>
<td><strong>Vapor Density</strong></td>
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<tr>
<td><strong>Evaporation Rate</strong></td>
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<td>No data available</td>
<td>No data available</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Flammability</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Flash Point</strong></td>
<td><strong>UEL</strong></td>
</tr>
<tr>
<td>196 °F (91.1111 °C)</td>
<td>No data available</td>
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<tr>
<td><strong>LEL</strong></td>
<td><strong>Autoignition</strong></td>
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<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td><strong>No data available</strong></td>
</tr>
<tr>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Environmental</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Octanol/Water Partition coefficient</strong></td>
<td><strong>No data available</strong></td>
</tr>
<tr>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Section 10: Stability and Reactivity

**Reactivity Chemical stability**

- Non-reactive under normal handling and storage conditions.
- Stable

**Possibility of hazardous reactions**

- Hazardous polymerization will not occur.

**Conditions to avoid**

- Direct sunlight. Do not freeze. Excessive heat >110°F. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

**Incompatible materials**

- Store away from oxidizers.
Hazardous decomposition products
- Carbon dioxide and possibly carbon monoxide.

Section 11 - Toxicological Information

Information on toxicological effects

<table>
<thead>
<tr>
<th>Components</th>
<th>Acute Toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins (1%)</td>
<td>Ingestion/Oral-Rat, adult female LD50 • 1030 mg/kg; Ingestion/Oral-Rat, adult male LD50 • 2370 mg/kg; Inhalation-Rat LC50 • 3.4 mg/L; Skin-Rat LD50 • 2000 mg/kg</td>
</tr>
<tr>
<td>Piperonyl butoxide (2%)</td>
<td>Ingestion/Oral-Rat • 4300 mg/kg; Inhalation-Rat • &gt;5 mg/L 4 Hour(s); Skin-Rat LD50 • &gt;2000 mg/kg; Irritation: Eye-Rabbit • Essentially non-irritating; Skin-Rabbit • Essentially non-irritating</td>
</tr>
<tr>
<td>N-Octyl Bicycloheptene Dicarboximide (2.94%)</td>
<td>Ingestion/Oral-Rat LD50 • 2800 mg/kg; Skin-Rabbit LD50 • 470 mg/kg</td>
</tr>
</tbody>
</table>

GHS Properties

| Acute toxicity | OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met |
| Skin corrosion/Irritation | OSHA HCS 2012 • Skin Irritation 2 |
| Serious eye damage/Irritation | OSHA HCS 2012 • Classification criteria not met |
| Skin sensitization | OSHA HCS 2012 • Skin Sensitizer 1 |
| Respiratory sensitization | OSHA HCS 2012 • Classification criteria not met |
| Aspiration Hazard | OSHA HCS 2012 • Aspiration 1 |
| Carcinogenicity | OSHA HCS 2012 • Classification criteria not met |
| Germ Cell Mutagenicity | OSHA HCS 2012 • Not classified - data lacking |
| Toxicity for Reproduction | OSHA HCS 2012 • Classification criteria not met |
| STOT-SE | OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects |
| STOT-RE | OSHA HCS 2012 • Classification criteria not met |

Potential Health Effects

Inhalation
- Acute (Immediate): May cause drowsiness and dizziness.
- Chronic (Delayed): No data available

Skin
- Acute (Immediate): May cause an allergic reaction in individuals with a sensitivity to piperonyl butoxide. Causes skin irritation.
- Chronic (Delayed): No data available

Eye
- Acute (Immediate): May cause moderate irritation.
- Chronic (Delayed): No data available
Ingestion
Acute (Immediate)
• Aspiration hazard - small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Chronic (Delayed)
• No data available

Mutagenic Effects
• Piperonyl butoxide was not genotoxic in several tests, including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells. Pyrethrins were not found to be genotoxic and did not damage DNA in any study conducted which included: Ames assay, chromosome aberration in Chinese hamster oocytes (CHO) cells and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

Carcinogenic Effects
• Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. Pyrethrins are not listed as a carcinogen by OSHA, IARC, or NTP.

Reproductive Effects
• Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits.

Section 12 - Ecological Information

Toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Aquatic Toxicity-Fish:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins (1%) 8003-34-7</td>
<td>96 Hour(s) LC50 <em>Rainbow trout</em> 0.0051 mg/L [Acute] 96 Hour(s) LC50 <em>Sheepshead minnow</em> 0.016 mg/L [Acute] 96 Hour(s) NOEC <em>Fathead minnow</em> 0.0019 mg/L [Chronic] NOEC <em>Sheepshead minnow</em> 0.0059 mg/L [estimated chronic]</td>
</tr>
<tr>
<td>N-Octyl Bicycloheptene Dicarboximide (2.94%) 113-48-4</td>
<td>Aquatic Toxicity-Crustacea:  NOEC <em>Daphnia magna</em> 0.00086 mg/L [Chronic] NOEC <em>Mysid shrimp</em> 0.0001 mg/L [Estimated chronic] 96 Hour(s) LC50 <em>Mysid Shrimp</em> 0.0014 mg/L [Acute] 48 Hour(s) LC50 <em>Water Flea Daphnia magna</em> 0.0116 mg/L [Acute]</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light (93.93%) 64742-47-8</td>
<td>Aquatic Toxicity-Fish: 96 Hour(s) LC50 <em>Rainbow Trout</em> 2.9 mg/L [Acute] 96 Hour(s) LC50 <em>Lepomis macrochirus</em> 2.2 mg/L [Acute]</td>
</tr>
</tbody>
</table>

Persistence and degradability
• Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.

Bioaccumulative potential
• No data available.

Mobility in Soil
• Pyrethrins are relatively immobile in soil.
Other adverse effects

Potential Environmental Effects

- This product is toxic to aquatic organisms, including fish and invertebrates.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water by disposal.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not Applicable</td>
<td>Not regulated in packaging &lt; 100 lbs.</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>UN1268</td>
<td>Packaging 100 Lbs. or greater: Petroleum distillates, n.o.s.</td>
<td>Comb. Liq.</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQ = 1 lb. Pyrethrins</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>UN3082</td>
<td>Packaging 5 L or greater: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN3082</td>
<td>Packaging 5 L or greater: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Aquatic Toxicity</td>
</tr>
</tbody>
</table>

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Other information

- No data available
Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications  •  SARA Title III Section 313, Acute

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Precautionary Statements  •  KEEP OUT OF THE REACH OF CHILDREN.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION: Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

First Aid

If in eyes •Hold eye open and rinse slowly and gently with water for 15-20 minutes. •Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. •Call a Poison Control Center or doctor for treatment advice. If swallowed •Immediately call a Poison Control Center or doctor. •Do not give any liquid to the person. •Do not induce vomiting unless told to by a Poison Control Center or doctor. •Do not give anything by mouth to an unconscious person. If on skin or clothing •Take off contaminated clothing. •Rinse skin immediately with plenty of water for 15-20 minutes. •Call a Poison Control Center or doctor for treatment advice. NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Environmental Hazards

This product is toxic to aquatic organisms, including fish and invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.
BRANDT® INSECTSTOP™ EC 123
Safety Data Sheet 2016-09

Physical or Chemical • Do not use or store near heat or open flame

Hazards

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>Yes</td>
</tr>
<tr>
<td>N-Octyl bicycloheptene dicarboximide</td>
<td>113-48-4</td>
<td>No</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>51-03-6</td>
<td>Yes</td>
</tr>
<tr>
<td>Pyrethrins</td>
<td>8003-34-7</td>
<td>No</td>
</tr>
</tbody>
</table>

United States

Environment

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- **Pyrethrins**
  - 8003-34-7
  - 1 lb final RQ (listed under Pyrethrins); 0.454 kg final RQ (listed under Pyrethrins)

- Distillates (petroleum), hydrotreated light
  - 64742-47-8
  - Not Listed

- N-Octyl bicycloheptene dicarboximide
  - 113-48-4
  - Not Listed

- **Piperonyl butoxide**
  - 51-03-6
  - Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- **Pyrethrins**
  - 8003-34-7
  - Not Listed

- Distillates (petroleum), hydrotreated light
  - 64742-47-8
  - Not Listed

- N-Octyl bicycloheptene dicarboximide
  - 113-48-4
  - Not Listed

- **Piperonyl butoxide**
  - 51-03-6
  - 1.0 % de minimis concentration

Section 16 - Other Information

Disclaimer/Statement of Liability

- The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.