Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • Pyronyl Crop Spray
Synonyms • 100208914; 100208915; 100208916; 100209026; EPA Reg. No.: 89459-26
Product Description • Yellow to amber liquid.

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

Recommended use • Pesticide.
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. Avoid inhalation of vapors or fumes.

Details of the supplier of the safety data sheet

Manufacturer • Central Garden & Pet Company
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States
www.starbarproducts.com

Emergency telephone number

Manufacturer (Transportation) • 1-800-424-9300 - CHEMTREC
Manufacturer (Transportation) • 1-703-527-3887 - Chemtrec - Outside US collect calls accepted
Manufacturer • 1-800-248-7763

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
• Eye Irritation 2A
• Flammable Liquids 4
• Skin Irritation 2
• Skin Sensitization 1

Label elements

OSHA HCS 2012

DANGER
Hazard statements
- Causes serious eye irritation
- Causes skin irritation
- May be fatal if swallowed and enters airways
- May cause an allergic skin reaction
- Combustible liquid

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.

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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Do NOT induce vomiting.
- If eye irritation persists: Get medical advice/attention.
- In case of fire: Use appropriate media Foam, water, dry chemical or CO2. for extinction.

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
OSHA HCS 2012
- This product is toxic to aquatic organisms, including fish and invertebrates. This product is toxic to bees exposed to direct treatment on blooming crops or weeds. 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>Pyrethrin</td>
<td>CAS:8003-34-7</td>
<td>6%</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>CAS:51-03-6</td>
<td>60%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>CAS:64742-47-8</td>
<td>19%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>NDA</td>
<td>15%</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; eye irritant, skin irritant, may cause an allergic skin reaction in individuals with a sensitivity to Pyrethrins. 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. Move containers from fire area if you can do it without risk.

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.

Section 8 - Exposure Controls/Personal Protection

Control parameters
Exposure Limits/Guidelines
- No data available.

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrin</td>
<td>5 mg/m3 TWA</td>
<td>5 mg/m3 TWA</td>
<td>5 mg/m3 TWA</td>
</tr>
<tr>
<td>(8003-34-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Result</td>
<td>TWAs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exposure controls

Engineering Measures/Controls
- Use adequate ventilation to remove vapors (fumes, dust, etc.)

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>Physical Form</th>
<th>Appearance/Description</th>
<th>Color</th>
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<tbody>
<tr>
<td></td>
<td>Liquid</td>
<td>Yellow to amber.</td>
<td>Pleasant woody.</td>
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### Odor Threshold
No data available

### General Properties

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<tr>
<th>Property</th>
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<td>Boiling Point</td>
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<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
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<tr>
<td>Specific Gravity/Relative Density</td>
<td>0.993</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>No data available</td>
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<tr>
<td>Volatility</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
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<tr>
<td>Flammability</td>
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</tr>
<tr>
<td>Flash Point</td>
<td>154°F (68°C)</td>
</tr>
<tr>
<td>UEL</td>
<td>7% (solvent)</td>
</tr>
<tr>
<td>LEL</td>
<td>0.6% (solvent)</td>
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<tr>
<td>Autoignition</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
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</table>

### Environmental

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

### Section 10: Stability and Reactivity

**Reactivity**
- Non-reactive under normal handling and storage conditions.

**Chemical stability**
- 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>Pyrethrin (6%)</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>
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</table>

<table>
<thead>
<tr>
<th>GHS Properties</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met</td>
</tr>
</tbody>
</table>
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

Skin corrosion/Irritation

OSHA HCS 2012 • Skin Irritation 2

Skin sensitization

OSHA HCS 2012 • Skin Sensitizer 1

STOT-RE

OSHA HCS 2012 • Classification criteria not met

STOT-SE

OSHA HCS 2012 • Classification criteria not met

Toxicity for Reproduction

OSHA HCS 2012 • Classification criteria not met

Respiratory sensitization

OSHA HCS 2012 • Classification criteria not met

Serious eye damage/Irritation

OSHA HCS 2012 • Eye Irritation 2A

Potential Health Effects

Inhalation

Acute (Immediate) • May cause irritation.

Chronic (Delayed) • No data available

Skin

Acute (Immediate) • May cause an allergic reaction in individuals with a sensitivity to Pyrethrins. Causes skin irritation.

Chronic (Delayed) • No data available

Eye

Acute (Immediate) • Causes serious eye 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

Section 12 - Ecological Information

Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Pyrethrin (6%)</td>
<td>8003-34-7</td>
<td><strong>Crustacea</strong>: NOEC Crustacea <em>Daphnia magna</em> 0.00086 mg/L [Chronic]; NOEC Crustacea <em>Mysis shrimp</em> 0.0001 mg/L [Estimated chronic]; 96 Hour(s) LC50 Crustacea <em>Mysis Shrimp</em> 0.0014 mg/L [Acute]; 48 Hour(s) LC50 Water Flea <em>Daphnia magna</em> 0.0116 mg/L [Acute]; <strong>Fish</strong>: 96 Hour(s) LC50 Fish <em>Rainbow trout</em> 0.0051 mg/L [Acute]; 96 Hour(s) LC50 Fish <em>Sheepshead minnow</em> 0.016 mg/L [Acute]; 96 Hour(s) NOEC Fish <em>Fathead minnow</em> 0.0019 mg/L [Chronic]; NOEC Fish <em>Sheepshead minnow</em> 0.0059 mg/L [Estimated chronic]</td>
</tr>
<tr>
<td>Piperonyl butoxide (60%)</td>
<td>51-03-6</td>
<td><strong>Crustacea</strong>: Crustacea <em>Daphnia magna</em> 0.047 mg/L [Chronic LOEC]; 48 Hour(s) LC50 Crustacea <em>Daphnia magna</em> 0.51 mg/L [Acute]; 48 Hour(s) LC50 Crustacea <em>Mysis shrimp</em> 0.49 mg/L [Acute]; NOEC Crustacea <em>Daphnia magna</em> 0.03 mg/L [Chronic]; <strong>Fish</strong>: 96 Hour(s) LC50 Fish <em>Rainbow Trout</em> 1.9 mg/L [Acute]; 96 Hour(s) LC50 Fish <em>Sheepshead minnow</em> 3.94 mg/L [Acute]; NOEC Fish <em>Fathead minnow</em> 0.04 mg/L [Chronic]; Fish <em>Fathead minnow</em> 0.11 mg/L [Chronic LOEC]</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light (19%)</td>
<td>64742-47-8</td>
<td><strong>Fish</strong>: 96 Hour(s) LC50 Fish <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. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

### 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>DOT</th>
<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></td>
<td>None</td>
<td>Consumer commodity (applies to non-bulk packaging only)</td>
<td>ORM-D</td>
<td>N/A</td>
<td>Marine Pollutant</td>
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<tr>
<td>UN3082</td>
<td>Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrin and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
<td></td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>UN3082</td>
<td>Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrin and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN3082</td>
<td>Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrin and Piperonyl butoxide)</td>
<td>9</td>
<td>III</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**
- No data available

**Other information**

| IMO/IMDG | Limited quantity 5L, excepted quantity 30mL |
| IATA/ICAO | Limited quantity 5L, excepted quantity 30mL |

**Key to abbreviations**
- N/A = Not applicable.

### 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

HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

If swallowed • Immediately call a Poison Control Center or physician. • Do not induce vomiting unless told to do so by the Poison Control Center or physician. • Do not give anything by mouth to an unconscious or convulsing 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 physician for treatment advice. 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 physician for treatment advice. NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

First Aid

Environmental Hazards

For terrestrial applications: This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate. For wide area mosquito adulticide applications: This pesticide is toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters. (For containers equal to or greater than 5 gallons) 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 Pollutant 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. Do not contaminate water when disposing of equipment wash-waters. Apply this product only as specified on this label.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum),</td>
<td>64742-47-8</td>
<td>Yes</td>
</tr>
<tr>
<td>hydrotreated light</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preparation Date: 10/March/2015
Revision Date: 10/March/2015

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### United States

#### Environment

<table>
<thead>
<tr>
<th>Substance</th>
<th>U.S. CERCLA/SARA - Hazardous Substances and their Reportable Quantities</th>
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</thead>
<tbody>
<tr>
<td>Pyrethrin</td>
<td>8003-34-7</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>51-03-6</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
</tr>
<tr>
<td>Pyrethrin</td>
<td>1 lb final RQ (listed under Pyrethrins); 0.454 kg final RQ (listed under Pyrethrins)</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>Not Listed</td>
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<tr>
<td>Distillates (petroleum), hydrotreated light</td>
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</table>

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

<table>
<thead>
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<th>Substance</th>
<th>U.S. - CERCLA/SARA - Section 313 - Emission Reporting</th>
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<td>Pyrethrin</td>
<td>8003-34-7</td>
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<tr>
<td>Piperonyl butoxide</td>
<td>51-03-6</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
</tr>
<tr>
<td>Pyrethrin</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>1.0 % de minimis concentration</td>
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<tr>
<td>Distillates (petroleum), hydrotreated light</td>
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</table>

### Section 16 - Other Information

- **Last Revision Date**: 10/March/2015
- **Preparation Date**: 10/March/2015
- **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.