Section 1: Identification

Product identifier

Product Name • Bronco Gold Equine Fly Spray

Synonyms • 3005635; 3005682; EPA Reg. No.: 270-263

Product Description • Pale yellow 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 • Farnam Companies, Inc.

1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States

www.farnam.com

Emergency telephone number

Manufacturer • 1-800-234-2269

Manufacturer (Transportation) • 1-800-424-9300 - CHEMTREC

Manufacturer (Transportation) • 1-703-527-3887 - CHEMTREC - Outside the 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
Facial Flammable Liquids 4
Skin Irritation 2
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Eye Irritation 2A

Label elements

OSHA HCS 2012

DANGER
Hazard statements
- May be fatal if swallowed and enters airways
- Combustible liquid
- Causes skin irritation
- May cause drowsiness or dizziness
- Causes serious eye irritation

Precautionary statements
Prevention
- Wash thoroughly after handling.
- 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.
- 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 eye irritation persists: Get medical advice/attention.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Do NOT induce vomiting.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.
- In case of fire: Use appropriate media water fog, dry chemical, CO2, foam for extinction.

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

Other hazards
- OSHA HCS 2012
  - This product is toxic to fish. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Material</th>
<th>Identifiers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins</td>
<td>CAS:8003-34-7</td>
<td>0.1%</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>CAS:51-03-6</td>
<td>1%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>CAS:64742-47-8</td>
<td>87.8%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>NDA</td>
<td>Balance</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 skin irritation 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, causes eye irritation, may cause dizziness or drowsiness if inhaled. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Contains petroleum distillate - vomiting may cause aspiration pneumonia. 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 upon heating.

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>Result</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins (8003-34-7)</td>
<td>TWAs</td>
<td>5 mg/m3 TWA</td>
<td>5 mg/m3 TWA</td>
<td>5 mg/m3 TWA</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 Measures/Controls
- Use adequate ventilation to remove vapors (fumes, dust, etc.)

Personal Protective Equipment
- Pictograms

Respiratory
- In case of insufficient ventilation, wear suitable NIOSH approved respiratory protection.

Eye/Face
- Wear chemical splash safety goggles.

Hands
- Wear chemical resistant gloves.

Skin/Body
- It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

Environmental Exposure Controls
- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Other Information
- See product label for specific use PPE instructions.

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>Pale yellow liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Pale yellow.</td>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Properties

| Boiling Point | No data available | Melting Point/Freezing Point | No data available |
| Decomposition Temperature | No data available | pH | No data available |
| Specific Gravity/Relative Density | 0.8 @ 20 °C (68 °F) Water=1 | Density | No data available |
| Water Solubility | Insoluble | Viscosity | < 50 Centipoise (cPs, cP) or mPas @ 20 °C (68 °F) |
| Critical Temperature | No data available |                     |                     |

Volatile

| Vapor Pressure | No data available | Vapor Density | No data available |
| Evaporation Rate | No data available |                     |                     |

Flammability

| Flash Point | 188 °F (86.6667 °C) TCC (Tagliabue Closed Cup) | UEL | No data available |
| LEL | No data available | Autoignition | No data available |
| Flammability (solid, gas) | No data available |                     |                     |

Environmental

| Octanol/Water Partition coefficient | No data available |                     |                     |

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: 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; Irritation: Eye-Rabbit • Moderate irritation; Skin-Rabbit • Essentially non-irritating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins (0.1%)</td>
<td>8003-34-7</td>
</tr>
<tr>
<td>Piperonyl butoxide (1%)</td>
<td>51-03-6</td>
</tr>
</tbody>
</table>

GHS Properties

<table>
<thead>
<tr>
<th>Potential Health Effects</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</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>
<tr>
<td>Skin corrosion/Irritation</td>
<td>OSHA HCS 2012 • Skin Irritation 2</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>OSHA HCS 2012 • Eye Irritation 2A</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>OSHA HCS 2012 • Aspiration 1</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>OSHA HCS 2012 • Not classified - data lacking</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
</tbody>
</table>
Acute (Immediate)
• May cause drowsiness and dizziness.

Chronic (Delayed)
• No data available

Skin
Acute (Immediate)
• Causes skin irritation.

Chronic (Delayed)
• No data available

Eye
Acute (Immediate)
• Under normal conditions of use, no health effects are expected.

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
• 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 ovaries (CHO) cells and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells. Piperonyl butoxide was not mutagenic in a battery of tests.

Carcinogenic Effects
• Pyrethrins are not listed as a carcinogen by OSHA, IARC, or NTP. Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. No other components present at 0.1% or greater are listed by IARC, OSHA or NTP.

Reproductive Effects
• Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits. Piperonyl butoxide 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: 96 Hour(s) LC50 Rainbow trout 0.0051 mg/L [Acute] 96 Hour(s) LC50 Sheepshead minnow 0.016 mg/L [Acute] 96 Hour(s) NOEC Fathead minnow 0.0019 mg/L [Chronic] NOEC Sheepshead minnow 0.0059 mg/L [estimated chronic] Aquatic Toxicity-Crustacea: NOEC Daphnia magna 0.00086 mg/L [Chronic] NOEC Mysis shrimp 0.0001 mg/L [Estimated chronic] 96 Hour(s) LC50 Mysis Shrimp 0.0014 mg/L [Acute] 48 Hour(s) LC50 Water Flea Daphnia magna 0.0116 mg/L [Acute]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins (0.1%)</td>
<td>8003-34-7</td>
</tr>
<tr>
<td>Piperonyl butoxide (1%)</td>
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</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light (87.8%)</td>
<td>64742-47-8</td>
</tr>
</tbody>
</table>

Persistence and degradability

Preparation Date: 23/August/2016
Revision Date: 23/May/2017
• 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 fish.

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.

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>UN3082</td>
<td>Packaging 1000 lbs. or greater: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
<td>RQ = Pyrethrins = 1 lb.</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>UN3082</td>
<td>For packaging = or &gt; 5L: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN3082</td>
<td>For packaging = or &gt; 5L: Environmentally Hazardous Substance, Liquid, n.o.s. (Pyrethrins 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

Other information

- DOT
  - Environmental Hazards: RQ (Pyrethrins = 1 lb).
- IMO/IMDG
  - No data available
- IATA/ICAO
  - 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

Hazard to Humans and Domestic Animals

First Aid

Keep out of the reach of children.

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes or clothing.

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 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.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call poison control center or doctor for treatment advice. Note to Physician: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Environmental Hazards

This pesticide is toxic to fish. Do not apply directly to water. Do not apply where run-off is likely to occur. Do not contaminate water by cleaning of equipment or disposing of equipment wastes. Apply this product only as specified on this label.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

<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>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
- 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
- Piperonyl butoxide 51-03-6 1.0 % de minimis concentration
# Section 16 - Other Information

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>23/May/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Revision Date</td>
<td>23/August/2016</td>
</tr>
<tr>
<td>Preparation Date</td>
<td>23/August/2016</td>
</tr>
<tr>
<td>Disclaimer/Statement of Liability</td>
<td>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.</td>
</tr>
</tbody>
</table>

Revision Statement: Updated Section 14