Section 1: Identification

Product identifier

Product Name

- ENDURE Sweat-Resistant Fly Spray for Horses

Synonyms

- 100502139; 100526253; 100526254; 3002221; 3002431; 3003242; 3004324; EPA Reg. No.: 270-251

Product Description

- Milky white liquid.

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

Recommended use

- Insecticide.

Restrictions on use

- Avoid contact with eyes, skin or clothing. Use in well ventilated area. Keep out of reach of children.

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

- Eye Mild Irritation 2B

Label elements

OSHA HCS 2012

Hazard statements

- Causes eye irritation

Precautionary statements

WARNING
Prevention
• Wash thoroughly after handling.

Response
• 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.

Other hazards
OSHA HCS 2012
• This product is extremely toxic to fish and aquatic vertebrates. This product is toxic to bees exposed to direct treatment on blooming crops or weeds.

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>0.2%</td>
</tr>
<tr>
<td>Butoxypolypropylene glycol</td>
<td>CAS:9003-13-8</td>
<td>5%</td>
</tr>
<tr>
<td>Cypermethrin</td>
<td>CAS:52315-07-8</td>
<td>0.15%</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>CAS:51-03-6</td>
<td>1.6%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>NDA</td>
<td>93.05%</td>
</tr>
</tbody>
</table>

Section 4: First-Aid Measures

Description of first aid measures

Inhalation
• IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor if you feel unwell.

Skin
• IF ON SKIN: Wash skin with 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: Call a POISON CONTROL center or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed
• Causes mild eye irritation. 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
- SMALL FIRES: Dry chemical, CO2, water spray or regular foam.
- LARGE FIRE: Water spray, fog or regular foam.

Unsuitable Extinguishing Media
- None known.

Firefighting Procedures
- Do not allow fire fighting water to escape into waterways or sewers.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- No data available.

Hazardous Combustion Products
- No data available.

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
- Avoid contact with skin, eyes, and clothing. Ventilate enclosed areas. Avoid breathing fumes.

Emergency Procedures
- Stay upwind. Avoid release into the environment. Do not allow runoff into water, storm drains or drainage ditches. Ventilate closed spaces before entering.

Environmental precautions
- Avoid run off to waterways and sewers.

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.

Section 7 - Handling and Storage

Precautions for safe handling

Handling
- Use good safety and industrial hygiene practices. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage
- Store in cool, dry, secure place. Keep out of reach of children. Keep only in the original container. Store pesticides away from food, pet food, feed, seed, fertilizers,
and veterinary supplies.

### Section 8 - Exposure Controls/Personal Protection

#### Control parameters

**Exposure Limits/Guidelines**

- No data available.

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrin (8003-34-7) 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**

- Pyrethrin (8003-34-7): **TLV Basis - Critical Effects**: (liver damage; lower respiratory tract irritation)

#### Exposure controls

**Engineering Measures/Controls**

- Local exhaust ventilation.

**Personal Protective Equipment**

- Respiratory
  - If prolonged exposure is anticipated, it is recommended for handlers to wear an approved MSHA/NIOSH organic vapor/pesticide respirator.

- Eye/Face
  - If prolonged exposure is anticipated, it is recommended for handlers to wear goggles.

- Hands
  - If prolonged exposure is anticipated, it is recommended for handlers to wear impervious 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>Milky white liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Form</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Milky white.</td>
<td>Odor</td>
<td>Mild solvent.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td>Physical and Chemical Properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Properties</th>
<th>Boiling Point</th>
<th>Melting Point/Freezing Point</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>pH</td>
<td>5.8</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>pH</td>
<td>5.8</td>
</tr>
</tbody>
</table>
Specific Gravity/Relative Density = 0.998 Water=1

Water Solubility | Not soluble |
---|---|

Viscosity | < 100 Centipoise (cPs, cP) or mPas
Explosive Properties | No data available |

Vapor Pressure | No data available
Vapor Density | No data available

Evaporation Rate | No data available

Flammability

Flash Point | No flash to boil
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**

- No data available.

**Chemical stability**

- Stable

**Possibility of hazardous reactions**

- Hazardous polymerization will not occur.

**Conditions to avoid**

- Excessive heat.

**Incompatible materials**

- Strong acids, strong bases and oxidizing agents.

**Hazardous decomposition products**

- Decomposes upon heating to produce toxic gases which may include: hydrogen chloride, carbon oxides.

---

**Section 11 - Toxicological Information**

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Acute Toxicity: Ingestion/Oral-Rat • &gt;5000 g/kg; Inhalation-Rat • &gt;5000 mg/L 4 Hour (s); Skin-Rabbit • &gt;2000 g/kg; Irritation: Eye-Rabbit • Mild irritation; Skin-Rabbit • Essentially non-irritating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENDURE Sweat-Resistant Fly Spray for Horses</td>
<td>NDA</td>
</tr>
</tbody>
</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>
<tr>
<td>Skin corrosion/Irritation</td>
<td>OSHA HCS 2012 • Classification criteria not met</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>OSHA HCS 2012 • Eye Mild irritation 2B</td>
</tr>
</tbody>
</table>
### Potential Health Effects

#### Inhalation
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

#### Skin
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

#### Eye
- **Acute (Immediate)**: May cause mild irritation.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

#### Ingestion
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

### Section 12 - Ecological Information

#### Toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Aquatic Toxicity-Fish: 96 Hour(s) LC50</th>
<th>Aquatic Toxicity-Crustacea: NEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pyrethrin (0.2%)</strong></td>
<td><em>Rainbow trout</em> 0.0051 mg/L</td>
<td>Daphnia magna 0.00086 mg/L</td>
</tr>
<tr>
<td>8003-34-7</td>
<td><em>Sheephead minnow</em> 0.016 mg/L</td>
<td>[Acute]</td>
</tr>
<tr>
<td></td>
<td><em>NOEC Fathead minnow</em> 0.0019 mg/L</td>
<td>[Acute]</td>
</tr>
<tr>
<td></td>
<td><em>NOEC Sheephead minnow</em> 0.0059 mg/L</td>
<td>[estimated chronic]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Piperonyl butoxide (1.6%)</th>
<th>Aquatic Toxicity-Fish: 96 Hour(s) LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>51-03-6</td>
<td><em>Rainbow Trout</em> 1.9 mg/L [Acute]</td>
</tr>
<tr>
<td></td>
<td><em>Sheephead minnow</em> 3.94 mg/L [Acute]</td>
</tr>
<tr>
<td></td>
<td><em>NOEC Fathead minnow</em> 0.04 mg/L [Chronic]</td>
</tr>
<tr>
<td></td>
<td><em>Fathead minnow</em> 0.11 mg/L [Chronic LOEC]</td>
</tr>
</tbody>
</table>

### Persistence and degradability
- No data available.

### Bioaccumulative potential
- No data available.
Mobility in Soil

- No data available.

Other adverse effects

Potential Environmental Effects

- This product is extremely toxic to fish and aquatic vertebrates. This product is highly toxic to bees.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Never place unused product down any indoor or outdoor drain. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- If empty: Nonrefillable container. Do not reuse or refill container. Offer for recycling, if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>DOT 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>UN3082</td>
<td>Bulk packaging only: Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins, Cypermethrin)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>UN 3082</td>
<td>Packaging 5 L or greater: Environmentally Hazardous Substance, liquid, n.o.s. (Pyrethrins, Cypermethrin)</td>
<td>9</td>
<td>III</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>UN 3082</td>
<td>Packaging 5 L or greater: Environmentally Hazardous Substance, liquid, N.O.S. (Pyrethrins, Cypermethrin)</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

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

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 and Domestic Animals**

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION**

HUMANS: Harmful if inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Avoid contact with skin eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long sleeved shirt and long pants, socks and shoes and chemical-resistant gloves made of any waterproof material.

HORSES: Do not allow product to contact animal's eyes, nose, mouth, or sores during application. Do not use on foals under 12 weeks. Use only in well-ventilated areas.

**User Safety Recommendations:** User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**First Aid**

IF INHALED • Move person to fresh air • If person is not breathing call 911 or an ambulance • Call a poison control center or doctor immediately for treatment advice then give artificial respiration, preferably by mouth-to-mouth, if possible • Call a poison control center or doctor for further 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 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 immediately for treatment advice

IF SWALLOWED • Have person sip a glass of water if able to swallow • Do not induce vomiting unless told to do so by the poison control center or doctor • Do not give anything by mouth to an unconscious person

**Environmental Hazards**

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. This pesticide 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.

**Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypermethrin</td>
<td>52315-07-8</td>
<td>No</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>51-03-6</td>
<td>Yes</td>
</tr>
<tr>
<td>Butoxypolypropylene glycol</td>
<td>9003-13-8</td>
<td>Yes</td>
</tr>
<tr>
<td>Pyrethrin</td>
<td>8003-34-7</td>
<td>No</td>
</tr>
</tbody>
</table>

**United States**

Preparation Date: 16/February/2015
Revision Date: 08/September/2016
Environment
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
  • Cypermethrin  52315-07-8  Not Listed
  • Butoxypolypropylene glycol  9003-13-8  Not Listed
  • Pyrethrin  8003-34-7  1 lb final RQ (listed under Pyrethrins); 0.454 kg final RQ (listed under Pyrethrins)
  • Piperonyl butoxide  51-03-6  Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting
  • Cypermethrin  52315-07-8  Not Listed
  • Butoxypolypropylene glycol  9003-13-8  Not Listed
  • Pyrethrin  8003-34-7  Not Listed
  • Piperonyl butoxide  51-03-6  1.0 % de minimis concentration

Section 16 - Other Information

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>MSDS Number</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/September/2016</td>
<td></td>
<td>Section 1 changed. Added additional SKU number</td>
</tr>
</tbody>
</table>

Revision Date
• 08/September/2016

Last Revision Date
• 06/May/2016

Preparation Date
• 16/February/2015

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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.