



ENDURE Sweat-Resistant Fly Spray for Horses

Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : ENDURE Sweat-Resistant Fly Spray for Horses
Synonyms : 3002431, 100526253, EPA Reg. No.: 270-251

1.2. Recommended use and restrictions on use

Recommended use : Insecticide.
Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin and clothing.

1.3. Supplier

Farnam Companies, Inc.
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173

www.farnam.com

1.4. Emergency telephone number

Emergency number : 1-800-234-2269
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 2B Causes eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : Causes eye irritation
Precautionary statements (GHS US) : Wash hands, forearms and face thoroughly after handling.
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.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is extremely toxic to fish and aquatic vertebrates. This product is highly 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.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%
Cypermethrin	(CAS-No.) 52315-07-8	0.15
Pyrethrins	(CAS-No.) 8003-34-7	0.2
Piperonyl butoxide	(CAS-No.) 51-03-6	1.6
Butoxy Polypropylene Glycol	(CAS-No.) 9003-13-8	5
Polyethylene glycol mono(octylphenyl) ether	(CAS-No.) 9036-19-5	1.94
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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 and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after eye contact : Causes eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water, CO2 or dry chemical.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Evacuate area. Stay upwind. Keep unauthorized personnel away. Do not allow fire fighting water to escape into waterways or sewers. Do not breathe gas/fumes/vapor/spray.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Positive pressure self-contained breathing apparatus (SCBA).
- Emergency procedures : Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area. Stay upwind. Wear appropriate personal protective equipment, avoid direct contact.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Use appropriate PPE.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

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Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep cool. Keep container tightly closed. Keep only in original container. Avoid extreme temperatures. Protect from sunlight. Keep from freezing.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pyrethrins (8003-34-7)		
ACGIH	ACGIH OEL TWA	5 mg/m ³
ACGIH	Remark (ACGIH)	Liver dam; LRT irr
OSHA	OSHA PEL (TWA) [1]	5 mg/m ³
IDLH	IDLH	5000 mg/m ³
NIOSH	NIOSH REL (TWA)	5 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Milky white liquid
Color : Milky white
Odor : Mild solvent
Odor threshold : No data available
pH : 5.8
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : No flash to boil
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not applicable
Vapor pressure : No data available

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Relative vapor density at 20 °C	: No data available
Relative density	: 0.998
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 100 cP
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid extreme temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not freeze.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ENDURE Sweat-Resistant Fly Spray for Horses	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Under normal conditions of use, no health effects are expected.

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Skin

Acute : Under normal conditions of use, no health effects are expected.

Eye

Acute : Causes mild eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity

: Cypermethrin is not a mutagen. 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. Butoxy polypropylene glycol is not a mutagen.

Carcinogenicity

: Cypermethrin is not classified as a carcinogen by NTP, IARC or OSHA. Pyrethrins are not listed as a carcinogen by OSHA, IARC, or NTP. Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. Butoxy polypropylene glycol is not listed as a carcinogen by OSHA, IARC or NTP.

Reproductive Effects

: Cypermethrin does not cause birth defects or adverse effects on reproduction. 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. Butoxy polypropylene glycol does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

Cypermethrin (52315-07-8)	
LC50 Acute fish 1	0.00039 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.00095 ml/l (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.00000475 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0000036 mg/l (Exposure time: 48h - Hyalella Azteca)
NOEC Chronic fish 1	0.00014 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.00000078 mg/l (Mysid shrimp)
Pyrethrins (8003-34-7)	
LC50 Acute fish 1	0.0051 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.016 mg/l (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.0014 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0116 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.0019 mg/l (Fathead minnow)
NOEC Chronic fish 2	0.0059 mg/l (Sheepshead minnow - Estimated)
NOEC Chronic crustacea 1	0.00086 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.0001 mg/l (Mysid shrimp - Estimated)
Piperonyl butoxide (51-03-6)	
LC50 Acute fish 1	1.9 mg/l (Rainbow trout)
LC50 Acute fish 2	3.94 mg/l (Sheepshead minnow)
LC50 Acute crustacea 1	0.49 mg/l (Mysid shrimp)
LC50 Acute crustacea 2	0.51 mg/l (Gammarus fasciatus (amphipod))
NOEC Chronic fish 1	0.04 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.03 mg/l (Daphnia magna)

12.2. Persistence and degradability

Pyrethrins (8003-34-7)	
Persistence and degradability	Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

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Ecological Fate	This product is extremely toxic to fish and aquatic vertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3082	Packaging greater than 500 lbs.: Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins and Cypermethrin)	9	III	RQ Pyrethrins = 1 lb.
IMDG	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, N.O.S. (Pyrethrins and Cypermethrin)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, N.O.S. (Pyrethrins and Cypermethrin)	9	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

Pyrethrins (8003-34-7)	
CERCLA RQ	1 lb listed under Pyrethrins
Piperonyl butoxide (51-03-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %
Butoxy Polypropylene Glycol (9003-13-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Polyethylene glycol mono(octylphenyl) ether (9036-19-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
EPA Labelling	
EPA Registration Number	270-251
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.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	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.

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FIFRA First aid	Call a poison control center or doctor immediately for treatment advice. 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. 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. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. IF SWALLOWED: Call a poison control center or doctor for treatment advice. 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.
FIFRA Environmental hazards	This product is extremely toxic to fish and aquatic vertebrates. 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 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 foraging the treatment area.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 16 February 2015
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SDS US (GHS HazCom 2012) - CGP

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