



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Endure Roll-On For Horses**

Synonyms • 3005333; EPA Reg. No.: 270-253

Product Description • White to pale yellow opaque liquid.

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

Recommended use • Insecticide.

Restrictions on use •
Avoid contact with eyes and skin. Keep out of the reach of children. Avoid release to the environment.

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
Skin Sensitization 1

Label elements

OSHA HCS 2012

WARNING



Hazard statements • May cause an allergic skin reaction

Causes eye irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Avoid breathing dust, fume, gas, mist, vapors and/or spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
- 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.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- This product is extremely toxic to fish and aquatic invertebrates and highly toxic to bees exposed to direct treatment or to residues on crop 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

Composition		
Chemical Name	Identifiers	%
Cypermethrin	CAS:52315-07-8	0.15%
Pyrethrins	CAS:8003-34-7	0.2%
Piperonyl butoxide	CAS:51-03-6	1.63%
Di-n-propyl Isocinchomerate	CAS:136-45-8	0.5%
Butoxypolypropylene glycol	CAS:9003-13-8	4.85%
Glycerine	CAS:56-81-5	3.5%
Imidazolidenyl urea	CAS:39236-46-9	0.15%
Other ingredients	NDA	Balance

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. Get medical attention if symptoms occur.

Skin

- IF ON SKIN: Wash with plenty of soap and water. If skin 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.
- **Ingestion** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Have person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

- An allergic skin reaction may occur in individuals with a sensitivity to cypermethrin, piperonyl butoxide and/or imidazolidenyl urea. Causes 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**
- Use appropriate extinguishing media for surrounding fire.

- Unsuitable Extinguishing Media**
- No data available.

- Firefighting Procedures**
- Stay upwind.
Move containers from fire area if you can do it without risk.
Dike far ahead of spill to collect runoff water.

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 any skin contact. Avoid contact with eyes. Use appropriate Personal Protective Equipment (PPE).

- Emergency Procedures**
- Keep out of low areas. Stay upwind. Avoid release into the environment. Do not allow runoff into water, storm drains or drainage ditches.

Environmental precautions

- Avoid release to the environment.

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. Avoid contact with skin or eyes. Wash thoroughly with soap and water after handling. See product label for additional information.

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. Avoid excessive heat.

Other Information

- See product label for additional information.

Section 8 - Exposure Controls/Personal Protection**Control parameters**

Exposure Limits/Guidelines • No data available.

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Pyrethrins (8003-34-7)	TWAs	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWA
Glycerine (56-81-5)	TWAs	Not established	Not established	15 mg/m ³ TWA (mist, total particulate); 5 mg/m ³ TWA (mist, respirable fraction)

Exposure Limits Supplemental**ACGIH**

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

Exposure controls**Engineering Measures/Controls**

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment**Pictograms****Respiratory**

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

Eye/Face

- Wear chemical splash safety goggles.

Hands

- Impervious 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 • Refer to Section 13 - Disposal Considerations.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	White to pale yellow opaque liquid.
Color	White to pale yellow.	Odor	Fragrant
Odor Threshold	No data available	Physical and Chemical Properties	No data available
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	6 to 7
Specific Gravity/Relative Density	= 1.003 @ 20 °C(68 °F) Water=1	Bulk Density	8.55 lb/gal
Water Solubility	Insoluble	Viscosity	600 to 2500 Centipoise (cPs, cP) or mPas @ 22.5 °C(72.5 °F)
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	No data available
VOC (Vol.)	No data available		
Flammability			
Flash Point	205 °F(96.1111 °C)	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 under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excessive heat.

Incompatible materials

- No data available

Hazardous decomposition products

- May decompose upon heating to produce toxic vapors/gases.

Section 11 - Toxicological Information

Information on toxicological effects

	CAS	
Endure Roll-On For Horses	NDA	Acute Toxicity: Ingestion/Oral-Rat, adult female LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >2.03 mg/L; Skin -Rat TD50 • >5000 mg/kg; Irritation: Eye-Rabbit • Mild irritation; Skin-Rabbit • Mild irritation

GHS Properties	Classification
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 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Mild Irritation 2B
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • May cause slight skin irritation. May cause an allergic reaction in individuals with a sensitivity to cypermethrin, piperonyl butoxide and/or imidazolidenyl urea. Contact with cypermethrin may cause reversible skin sensations (paresthesia) which may include numbing, burning or tingling.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Causes eye irritation.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Mutagenic Effects

- 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. Di-n-propyl isocinchomerate is not a mutagen. Butoxypolypropylene glycol is not a mutagen.

Carcinogenic Effects

- No component in this product present at 0.1% or greater is listed by IARC, OSHA 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. Di-n-propyl isocinchomeronate showed adverse effects on reproduction in laboratory animals. Butoxypolypropylene glycol does not cause birth defects.

Section 12 - Ecological Information**Toxicity**

Components		
Cypermethrin (0.15%)	52315-07-8	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow trout</i> 0.00039 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.00014 mg/L [Chronic] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 0.00095 mg/L [Acute] Aquatic Toxicity-Crustacea: NOEC <i>Mysid shrimp</i> 0.0000008 mg/L [Chronic] 48 Hour(s) LC50 <i>Hyalella Azteca</i> 0.0000036 mg/L [Acute] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.0000048 mg/L [Acute]
Pyrethrins (0.2%)	8003-34-7	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow trout</i> 0.0051 mg/L [Acute] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 0.016 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.0019 mg/L [Chronic] NOEC <i>Sheepshead minnow</i> 0.0059 mg/L [Chronic (Est.)] Aquatic Toxicity-Crustacea: LC50 <i>Daphnia magna</i> 0.00086 mg/L [Chronic] NOEC <i>Mysid shrimp</i> 0.0001 mg/L [Chronic (Est.)] 48 Hour(s) LC50 <i>Daphnia magna</i> 0.0116 mg/L [Acute] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.0014 mg/L [Acute]
Piperonyl butoxide (1.63%)	51-03-6	Aquatic Toxicity-Fish: LC50 <i>Rainbow Trout</i> 1.9 mg/L [Acute] LC50 <i>Sheepshead minnow</i> 3.94 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.04 mg/L [Chronic] Aquatic Toxicity-Crustacea: LC50 <i>Gammarus fasciatus (amphipod)</i> 0.51 mg/L [Acute] LC50 <i>Mysid shrimp</i> 0.49 mg/L [Acute] NOEC <i>Daphnia magna</i> 0.03 mg/L [Chronic]
Di-n-propyl Isocinchomeronate (0.5%)	136-45-8	Aquatic Toxicity-Fish: LC50 <i>Rainbow Trout</i> 1 mg/L [Acute] LC50 <i>Bill gill</i> 0.44 mg/L [Acute] Aquatic Toxicity-Crustacea: 48 Hour(s) LC50 <i>Daphnia magna</i> 18 mg/L [Acute]

Persistence and degradability

- Cypermethrin: Non-persistent. Readily hydrolyzed. Not readily biodegradable. Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.

Bioaccumulative potential

- Cypermethrin: The substance does not have a potential for bioconcentration.

Mobility in Soil

- Permethrin: Immobile in soil. Pyrethrins are relatively immobile in soil.

Other adverse effects**Potential Environmental Effects**

- This material is extremely toxic to fish. This pesticide 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. Do not empty into drains.
- 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

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3082	Packaging 500 lbs. or greater: Environmentally hazardous substance, liquid, n.o.s. (Cypermethrin)	9	III	RQ = Pyrethrins = 1 lb.
IMO/IMDG	UN3082	Packing 5 L or greater: Environmentally hazardous substance, liquid, n.o.s. (Cypermethrin)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Packing 5 L or greater: Environmentally hazardous substance, liquid, n.o.s. (Cypermethrin)	9	III	Acute Aquatic Toxicity

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 • 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

- Acute, 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

- KEEP OUT OF REACH OF CHILDREN.

Hazards to Humans and Domestic Animals

For use on horses and ponies only. Not for use on humans. Harmful if absorbed through skin or inhaled. Contact with this product may cause transitory tingling sensation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water, after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. User Safety

Recommendations Users should wash hands with plenty of soap and water, before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing immediately, if pesticide gets inside. Then, wash thoroughly and put on clean clothing.

First Aid •

IF ON SKIN OR CLOTHING: If you suspect a reaction to this product • Discontinue use. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor 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. • 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 SWALLOWED** • Immediately call a poison control center or doctor. • Do not induce vomiting, unless told to do so by the poison control center or doctor. • Have person sip a glass of water, if able to swallow. • Do not give anything by mouth to an unconscious person. In case of medical emergencies, or health and safety inquiries, or in case of fire, leaking or damaged containers, or for product use information, call 800-234-2269. Have the product container or label with you, when calling a poison control center or doctor or going for treatment.

Environmental Hazards •

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to or near water. Drift and run-off may be hazardous to fish in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate. See Directions for Use for additional requirements. 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.

Inventory		
Component	CAS	TSCA
Di-n-propyl Isocinchomeronate	136-45-8	No
Butoxypolypropylene glycol	9003-13-8	Yes
Piperonyl butoxide	51-03-6	Yes
Pyrethrins	8003-34-7	No
Cypermethrin	52315-07-8	No

United States

Environment

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

• Butoxypolypropylene glycol	9003-13-8	Not Listed
• Piperonyl butoxide	51-03-6	Not Listed
• Di-n-propyl Isocinchomeronate	136-45-8	Not Listed
• Pyrethrins	8003-34-7	1 lb final RQ (listed under Pyrethrins); 0.454 kg final RQ (listed under Pyrethrins)
• Cypermethrin	52315-07-8	Not Listed

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

• Butoxypolypropylene glycol	9003-13-8	Not Listed
• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration

• Di-n-propyl Isocinchomeronate	136-45-8	1.0 % de minimis concentration
• Pyrethrins	8003-34-7	Not Listed
• Cypermethrin	52315-07-8	Not Listed

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none">• 19/May/2017
Last Revision Date	<ul style="list-style-type: none">• 21/September/2016
Preparation Date	<ul style="list-style-type: none">• 21/September/2016
Disclaimer/Statement of Liability	<ul style="list-style-type: none">• 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.

Revision Statement: Updated Section 14