Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Farnam Roll-On Fly Repellent for Horses, Ponies & Dogs**

Synonyms • 12101; EPA Reg. No.: 270-107

Product Description • Hazy yellow liquid.

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

Recommended use • Insecticide. Repellent.

Restrictions on use •

Keep out of the reach of children. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and flame.

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 • Flammable Liquids 4

Label elements

OSHA HCS 2012

WARNING

Hazard statements • Combustible liquid

Precautionary statements

Prevention • Keep away from flames and hot surfaces. - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.

Response •

In case of fire: Use appropriate media Water fog, CO_2, foam or dry chemical 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.

Other hazards

OSHA HCS 2012

- 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 according to United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Mixtures

Composition		
Chemical Name	**Identifiers**	**%**
Pyrethrins	**CAS:**8003-34-7	0.4%
Piperonyl butoxide	**CAS:**51-03-6	1%
Di-n-propyl Isocinchomeronate	**CAS:**136-45-8	1%
N-Octyl Bicycloheptene Dicarboximide	**CAS:**113-48-4	0.4%
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. Call a physician if symptoms occur.

Skin

- IF ON SKIN: Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

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 immediately for treatment advice. Do not give any liquid to the person. 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.

Most important symptoms and effects, both acute and delayed

- 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

- Avoid heavy hose streams.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Combustible liquid.

Hazardous Combustion Products

- Combustible liquid. May produce toxic gases or fumes 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

- Avoid contact with skin, eyes, and clothing. Wear appropriate personal protective equipment, avoid direct contact. Ventilate enclosed areas.

Emergency Procedures

- No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Use appropriate Personal Protective Equipment (PPE).
  SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling. Keep away from fire - No Smoking.

Conditions for safe storage, including any incompatibilities

Storage

-

Keep out of reach of children. Keep container tightly closed. Ventilate enclosed areas. Store in a cool/low-temperature, well-ventilated, dry place away from strong oxidizers.

Incompatible Materials or Ignition Sources
- Heat, sparks, open flame.

Section 8 - Exposure Controls/Personal Protection

Control parameters

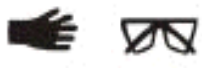
Exposure Limits/Guidelines				
	Result	**ACGIH**	**NIOSH**	**OSHA**
Pyrethrins (8003-34-7)	TWAs	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA

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 safety glasses.

Hands
- Wear appropriate gloves.

Skin/Body
- Not required with normal use.

General Industrial Hygiene Considerations
- Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls
- Avoid release to the environment.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Hazy yellow liquid.
Color	Yellow	Odor	Sweet
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	Not applicable - immiscible in water
Specific Gravity/Relative Density	= 0.869 @ 20 °C(68 °F) Water=1	Bulk Density	No data available
Water Solubility	Insoluble	Viscosity	224 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 (Vol.)	No data available
Flammability			
Flash Point	197 °F(91.6667 °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

- Keep away from fire.

Incompatible materials

- Strong oxidizers.

Hazardous decomposition products

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

Section 11 - Toxicological Information

Information on toxicological effects

	CAS	
Farnam Roll-On Fly Repellent for Horses, Ponies & Dogs	NDA	**Acute Toxicity:** Ingestion/Oral-Rat, adult female LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >2.07 mg/L; Skin-Rat LD50 • >5000 mg/kg; **Irritation:** Eye-Rabbit • Mild irritation; Skin-Rabbit • Essentially non-irritating

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** • Classification criteria not met
Skin sensitization	**OSHA HCS 2012** • Classification criteria not met
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)
- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- May cause mild irritation.

Chronic (Delayed)
- No data available

Ingestion

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

Chronic (Delayed)
- No data available

Other

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. N-octyl bicycloheptene dicarboximide was concluded to be negative in the CHO chromosome aberration assay. Di-n-propyl isocinchomeronate is not a mutagen.

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. N-octyl bicycloheptene dicarboximide is not listed by IARC, NTP, OSHA or ACGIH as a carcinogen. Di-n-propyl Isocinchomeronate is classified by US EPA as a B2-probable human carcinogen, it is not listed by IARC, NTP, OSHA or ACGIH as being carcinogenic. 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. N-octyl bicycloheptene dicarboximide has been tested and is not a reproductive toxin. Di -n-propyl isocinchomeronate showed adverse effects on reproduction in laboratory animals.

Section 12 - Ecological Information

Toxicity

Components		
Pyrethrins (0.4%)	8003-34-7	**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] NOEC *Fathead minnow* 0.0019 mg/L [Chronic] NOEC *Sheepshead minnow* 0.0059 mg/L [Chronic (Est.)] **Aquatic Toxicity-Crustacea:** LC50 *Daphnia magna* 0.00086 mg/L [Chronic] NOEC *Mysid shrimp* 0.0001 mg/L [Chronic (Est.)] 48 Hour(s) LC50 *Daphnia magna* 0.0116 mg/L [Acute] 96 Hour(s) LC50 *Mysid shrimp* 0.0014 mg/L [Acute]
Piperonyl butoxide (1%)	51-03-6	**Aquatic Toxicity-Fish:** LC50 *Rainbow Trout* 1.9 mg/L [Acute] LC50 *Sheephead minnow* 3.94 mg/L [Acute] NOEC *Fathead minnow* 0.04 mg/L [Chronic] **Aquatic Toxicity-Crustacea:** LC50 *Gammarus fasciatus (amphipod)* 0.51 mg/L [Acute] LC50 *Mysid shrimp* 0.49 mg/L [Acute] NOEC *Daphnia magna* 0.03 mg/L [Chronic]
Di-n-propyl Isocinchomeronate (1%)	136-45-8	**Aquatic Toxicity-Fish:** LC50 *Rainbow Trout* 1 mg/L [Acute] LC50 *Bill gill* 0.44 mg/L [Acute] **Aquatic Toxicity-Crustacea:** 48 Hour(s) LC50 *Daphnia magna* 18 mg/L [Acute]
N-Octyl Bicycloheptene Dicarboximide (0.4%)	113-48-4	**Aquatic Toxicity-Fish:** LC50 1.4-2.4 mg/L [Acute] **Aquatic Toxicity-Crustacea:** 48 Hour(s) LC50 *Daphnia magna* 2.3 mg/L [Acute]

Persistence and degradability

- Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.

Bioaccumulative potential

- Permethrin has a Log Pow of 6.1, but because of the ease with which biological systems degrade the molecule, the potential for bioconcentration and accumulation in the environment is low (BCF = 500). Permethrin: Bioconcentration factor (BCF) 300; Does notbioaccumulate.

Mobility in Soil

- Pyrethrins are relatively immobile in soil.

Other adverse effects

Potential Environmental Effects

- No data available.

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.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards

DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	Not Applicable

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

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

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 THE REACH OF CHILDREN.

Hazards to Humans and Domestic Animals •

Harmful if swallowed. For animal use only. Do not use on animals under 12 weeks. Consult a veterinarian before using this product on debilitated, aged, medicated, pregnant or nursing animals. Not for human use. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Sensitivities may occur after using ANY pesticide product on pets. If signs of sensitivity occur, bathe your pet with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately.

First Aid •

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. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
Note to Physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

Inventory		
Component	**CAS**	**TSCA**
Di-n-propyl Isocinchomeronate	136-45-8	No
N-Octyl Bicycloheptene Dicarboximide	113-48-4	No
Piperonyl butoxide	51-03-6	Yes

Pyrethrins	8003-34-7	No

United States

Environment

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

• Piperonyl butoxide	51-03-6	Not Listed
• N-Octyl Bicycloheptene Dicarboximide	113-48-4	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)

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

• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration
• N-Octyl Bicycloheptene Dicarboximide	113-48-4	Not Listed
• Di-n-propyl Isocinchomeronate	136-45-8	1.0 % de minimis concentration
• Pyrethrins	8003-34-7	Not Listed

Section 16 - Other Information

Revision Date
- 23/August/2016

Last Revision Date
- 23/August/2016

Preparation Date
- 23/August/2016

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