



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • Mosquito Halt Repellent Spray for Horses

Synonyms • 3003441; 3004331; EPA Reg. No.: 270-328

Product Description • Clear yellow liquid.

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

Recommended use • Insect repellent for horses.

Restrictions on use • Avoid contact with eyes, skin and clothing. Do not use or store near heat or open flame. Keep out of the reach of children. Avoid inhalation of vapors or fumes. Use in well ventilated area.

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.farnamhorse.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 2
Eye Irritation 2A
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

Label elements

OSHA HCS 2012

DANGER



Hazard statements • Highly flammable liquid and vapor

Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements

- Prevention**
- Ground and/or bond container and receiving equipment.
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - Keep container tightly closed.
 - Take precautionary measures against static discharge.
 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - Use only non-sparking tools.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Use only outdoors or in a well-ventilated area.
 - Wash thoroughly after handling.
 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.

- Response**
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - In case of fire: Use appropriate media Foam, CO₂, Dry Chemical for extinction.
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.
 - 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.

- 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.
 - Store locked up.
 - Keep container tightly closed.

Other hazards

OSHA HCS 2012

- This product is extremely toxic to aquatic organisms, including fish and invertebrates. 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.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
Permethrin	CAS:52645-53-1	0.2%
Piperonyl butoxide	CAS:51-03-6	0.5%
Prallethrin	CAS:23031-36-9	0.133%
N-Octyl Bicycloheptene Dicarboximide	CAS:113-48-4	2%
Di-n-propyl Isocinchomeronate	CAS:136-45-8	1%
Butoxypolypropylene Glycol	CAS:9003-13-8	5%
Isopropyl alcohol	CAS:67-63-0	86.34%
Other ingredients	NDA	4.827%

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 CENTER or doctor/physician if you feel unwell.
- Skin**
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower. Get medical attention if symptoms occur.
- 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 center or doctor if you feel unwell. Rinse mouth.

Most important symptoms and effects, both acute and delayed

- Causes serious eye irritation, may cause drowsiness or dizziness if inhaled. 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**
- Do not use water. May spread fire.
- Firefighting Procedures**
- Do not allow fire fighting water to escape into waterways or sewers. As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
Do not use direct stream of water. A direct stream of water may spread fire. Eliminate ignition sources.
Ventilate closed spaces before entering.
LARGE FIRES: Dike fire control water for later disposal; do not scatter the material. Do not walk through spilled material. Keep unauthorized personnel away. Stay upwind.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Air/vapor mixtures may explode when ignited. Containers may explode when heated. Vapors may travel to source of ignition and flash back. Flammable; may be ignited by heat, sparks or flames.
- Hazardous Combustion Products**
- Decomposes upon heating to produce toxic vapors/gases including carbon monoxide.

Advice for firefighters

- Fire fighting water contaminated with this material must be contained and prevented from being discharged into any waterway, sewer or drain. 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 the area before entry. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing

fumes. Keep all sources of ignition away.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Avoid release into the environment. Turn off electric power to area. Ventilate closed spaces before entering. Stay upwind.

Environmental precautions

- Do not allow runoff into water, storm drains or drainage ditches.

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.
Use clean non-sparking tools to collect absorbed material.
Stop leak if you can do it without risk.
Keep away from fire, sparks and heated surfaces.
Use appropriate Personal Protective Equipment (PPE)

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. Keep away from fire, sparks and heated surfaces. Avoid contact with skin or eyes. Keep away from heat and ignition sources – No Smoking. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe (dust, vapor or spray mist)

Conditions for safe storage, including any incompatibilities

Storage

- Store in cool, dry, secure place. Keep out of reach of children. Keep away from fire, sparks and heated surfaces. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep only in the original container.

Incompatible Materials or Ignition Sources

- Oxidizing agents. Strong acids. Heat, sparks, open flame.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

- No data available.

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Isopropyl alcohol (67-63-0)	TWAs	200 ppm TWA	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA
	STELs	400 ppm STEL	500 ppm STEL; 1225 mg/m3 STEL	Not established

Exposure Limits Supplemental

ACGIH

- Isopropyl alcohol (67-63-0): TLV Basis - **Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation)

Exposure controls

Engineering Measures/Controls

- Use adequate ventilation to remove vapors (fumes, dust etc)

Personal Protective Equipment

Pictograms

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Respiratory	<ul style="list-style-type: none"> In case of insufficient ventilation, wear suitable respiratory equipment.
Eye/Face	<ul style="list-style-type: none"> Wear chemical splash safety goggles.
Hands	<ul style="list-style-type: none"> Impervious gloves.
Skin/Body	<ul style="list-style-type: none"> If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.
Environmental Exposure Controls	<ul style="list-style-type: none"> Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear yellow liquid.
Color	Clear yellow liquid.	Odor	Slight alcohol with fragrance added.
Odor Threshold	No data available		
General Properties			
Boiling Point	> 180 F(> 82.2222 C)	Melting Point	No data available
Decomposition Temperature	No data available	pH	6.25 (5% in solution)
Specific Gravity/Relative Density	6.75 lb/gal (0.809)	Water Solubility	No data available
Viscosity	< 100 Centipoise (cPs, cP) or mPas		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	1.26 Water = 1		
Flammability			
Flash Point	56 F(13.3333 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 under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

Incompatible materials

- Store away from oxidizers and strong acids.

Hazardous decomposition products

- Incomplete combustion may produce carbon monoxide and other toxic gases.

Section 11 - Toxicological Information

Information on toxicological effects

	CAS	
Mosquito Halt Repellent Spray for Horses	NDA	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >2.04 mg/L 4 Hour (s); Skin-Rat LD50 • >5000 mg/kg; Irritation: Eye-Rabbit • Moderate 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
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Not classified - data lacking.
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2A

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - May cause irritation. May affect the central nervous system. Symptoms may include dizziness or drowsiness.
- Chronic (Delayed)**
 - No data available

Skin

- Acute (Immediate)**
 - May cause mild irritation.
- Chronic (Delayed)**
 - No data available

Eye

- Acute (Immediate)**
 - Causes serious 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

Carcinogenic Effects

- Di-n-propyl Isocinchomerionate is classified by US EPA as a tentative Class B carcinogen, it is not listed by IARC, NTP, OSHA or ACGIH as being carcinogenic.

Section 12 - Ecological Information

Toxicity

Component	CAS	Data
Permethrin (0.2%)	52645-53-1	Crustacea: NOEC Crustacea <i>Daphnia magna</i> 0.000039 mg/L [Chronic]; NOEC Crustacea <i>Mysid shrimp</i> 0.000011 mg/L [Chronic]; LC50 Crustacea <i>Hexagenia bilineata</i> 0.0001 mg/L [Acute]; 96 Hour(s) LC50 Crustacea <i>Mysid shrimp</i> 0.000019 mg/L [Acute]; Fish: 96 Hour(s) LC50 Fish <i>Blue gill</i> 0.00079 mg/L [Acute]; 96 Hour(s) LC50 Fish <i>Atlantic silverside</i> 0.0022 mg/L [Acute]; NOEC Fish <i>Fathead minnow</i> 0.0003 mg/L [Chronic]; NOEC Fish <i>Sheepshead minnow</i> 0.00083 mg/L [Chronic]
Piperonyl butoxide (0.5%)	51-03-6	Crustacea: Crustacea <i>Daphnia magna</i> 0.047 mg/L [Chronic LOEC]; 48 Hour(s) LC50 Crustacea <i>Daphnia magna</i> 0.51 mg/L [Acute]; 48 Hour(s) LC50 Crustacea <i>Mysid shrimp</i> 0.49 mg/L [Acute]; NOEC Crustacea <i>Daphnia magna</i> 0.03 mg/L [Chronic]; Fish: 96 Hour(s) LC50 Fish <i>Rainbow Trout</i> 1.9 mg/L [Acute]; 96 Hour(s) LC50 Fish <i>Sheepshead minnow</i> 3.94 mg/L [Acute]; NOEC Fish <i>Fathead minnow</i> 0.04 mg/L [Chronic]; Fish <i>Fathead minnow</i> 0.11 mg/L [Chronic LOEC]
Prallethrin (0.133%)	23031-36-9	Crustacea: NOEC Crustacea <i>Daphnia magna</i> 0.00065 mg/L [Chronic]; 48 Hour(s) LC50 Crustacea <i>Daphnia magna</i> 0.0062 mg/L [Acute]; Fish: 96 Hour(s) LC50 Fish <i>Rainbow Trout</i> 0.012 mg/L [Acute]; 96 Hour(s) LC50 Fish <i>Blue Gill</i> 0.022 mg/L [Acute]; 96 Hour(s) LC50 Fish <i>Sheepshead Minnow</i> 0.026 mg/L [Acute]; NOEC Fish <i>Rainbow Trout</i> 0.003 mg/L [Chronic]
N-Octyl Bicycloheptene Dicarboximide (2%)	113-48-4	Crustacea: 48 Hour(s) LC50 Crustacea <i>Daphnia magna</i> 2.3 mg/L [Acute]; Fish: LC50 Fish 1.4-2.4 mg/L [Acute]
Di-n-propyl Isocinchomeronate (1%)	136-45-8	Crustacea: 48 Hour(s) LC50 Crustacea <i>Daphnia magna</i> 18 mg/L [Acute]; Fish: LC50 Fish <i>Rainbow Trout</i> 1 mg/L [Acute]; LC50 Fish <i>Bill gill</i> 0.44 mg/L [Acute]

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 aquatic organisms, including fish and invertebrates. This product 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. Nonrefillable container. Never place unused product down any indoor or outdoor drain.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Do not reuse empty container. If empty: Place in trash or 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.

Section 14 - Transport Information

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

DOT	None	Consumer commodity	ORM-D	N/A	N/A
	UN1219	Isopropanol Solution	3	II	N/A
IMO/IMDG	UN1219	Isopropanol Solution	3	II	Marine Pollutant
IATA/ICAO	UN1219	Isopropanol Solution	3	II	N/A

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

Key to abbreviations

= N/A = Not applicable.

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 material 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.

WARNING

Hazard Statements • Flammable

Precautionary Statements • Keep out of reach of children.

Hazards to Humans and Domestic Animals • **WARNING Hazards to Humans:** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear appropriate eyewear (such as goggles or face shield). Wash hands thoroughly with soap and water promptly after use and before eating drinking chewing gum, using tobacco or using the toilet. **Hazards to Animals:** Avoid contact with eyes, or mucous membranes. Do not treat foals under 12 weeks of age unless prescribed by a veterinarian. Do not apply over cuts wounds or irritated skin. Do not allow the product to contact animals eyes, nose, or mouth. Apply sparingly around ears. Sensitivities may occur after using any pesticide product for animals. If signs of sensitivity occur, bathe the animal with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately. Consult a veterinarian before using this product on debilitated, aged, medicated, pregnant, or nursing animals.

First Aid • **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 further treatment advice.

Environmental Hazards • This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product may contaminate water through run-off. This product has potential for run-off for several months or more after application. Poorly draining soils or soils with shallow water tables are more prone to produce run-off that contains this product. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. See Directions for Use for additional precautions and requirements. 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.

Physical or Chemical Hazards • **FLAMMABLE** Keep away from heat and open flame. Contains alcohol. Do not apply to painted or finished wood surfaces.

Inventory		
Component	CAS	TSCA
Di-n-propyl Isocinchomeronate	136-45-8	No
Isopropyl alcohol	67-63-0	Yes
N-Octyl Bicycloheptene Dicarboximide	113-48-4	No
Permethrin	52645-53-1	No
Piperonyl butoxide	51-03-6	Yes
Butoxypolypropylene Glycol	9003-13-8	Yes
Prallethrin	23031-36-9	No

United States

Environment

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

• Butoxypolypropylene Glycol	9003-13-8	Not Listed 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
• Isopropyl alcohol	67-63-0	1.0 % de minimis concentration
• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration
• Permethrin	52645-53-1	1.0 % de minimis concentration
• Prallethrin	23031-36-9	Not Listed
• N-Octyl Bicycloheptene Dicarboximide	113-48-4	Not Listed
• Di-n-propyl Isocinchomeronate	136-45-8	1.0 % de minimis concentration

Section 16 - Other Information

- Last Revision Date** • 12/March/2015
- Preparation Date** • 12/March/2015
- Disclaimer/Statement of Liability** • 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.**