Mosquito Halt Repellent Spray for Horses

Safety Data Sheet

Issue date: 03/12/2015 Revision date: 06/28/2024 Supersedes: 01/21/2020 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Name : Mosquito Halt Repellent Spray for Horses

Synonyms : 3003441, 3004331, 100502152, 100551171, EPA Reg. No.: 270-328

1.2. Recommended use and restrictions on use

Recommended use : Insect repellent for horses.

Restrictions on use : Keep out of reach of children. Keep away from heat, sparks and flame. Avoid inhalation of vapors or fumes. Avoid contact with eyes, skin or clothing.

1.3. Supplier

Farnam Companies, Inc.
711 E. Missouri Avenue, Suite 200
Phoenix, AZ 85014-2863

www.farnam.com

1.4. Emergency telephone number

Emergency number : 1-800-234-2269
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

Flammable liquids Category 2	Highly flammable liquid and vapor
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Specific target organ toxicity – Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS02 GHS07

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Highly flammable liquid and vapor
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing fumes, mist, vapors, spray.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
Call poison control or doctor if you feel unwell.
In case of fire: Use water spray, dry powder, carbon dioxide, alcohol-resistant foam to

extinguish.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is extremely toxic to aquatic organisms, including fish and invertebrates. The product is highly toxic to bees exposed to direct treatment or residues 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

Name	Product identifier	%
Permethrin	(CAS-No.) 52645-53-1	0.2
Piperonyl butoxide	(CAS-No.) 51-03-6	0.5
Prallethrin	(CAS-No.) 23031-36-9	0.133
N-Octyl Bicyloheptene Dicarboximide	(CAS-No.) 113-48-4	2
Di-n-propyl Isocinchomeronate	(CAS-No.) 136-45-8	1
Butoxy Polypropylene Glycol	(CAS-No.) 9003-13-8	5
Isopropyl alcohol	(CAS-No.) 67-63-0	80 – 90
Non hazardous ingredients	(CAS-No.) N/A	Balance

Comments : * The concentration shown as a range to protect confidentiality or is due to the product variation

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.

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. Rinse skin with water/shower. Remove/Take off immediately all 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 : May cause drowsiness or dizziness.

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

4.3. Immediate medical attention and special treatment, if necessary

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Carbon dioxide. Alcohol-resistant foam.

Unsuitable extinguishing media : Avoid heavy hose streams. Water may be an ineffective extiguishing media. Water can be used to cool exposed material.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : Air/vapor mixtures may explode when ignited. Containers may explode when heated. Vapors may travel to source of ignition and flash back.

Reactivity : Non-reactive under normal handling and storage conditions.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : 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. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray. Large fires: Dike fire control water for later disposal. Eliminate all ignition sources if safe to do so. Keep unauthorized personnel away. Stay upwind.

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. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

Emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Turn off electric power to area. Use grounded electrical/mechanical equipment. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact. Stay upwind.

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. All equipment used when handling the product must be grounded. Use clean, non-sparking tools to collect absorbed material. Use appropriate PPE.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : 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

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store locked up. Do not store near heat or open flame. Keep cool. Protect from sunlight.

Incompatible materials : Strong oxidizers. Aluminum.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH OEL TWA	200 ppm
ACGIH	ACGIH OEL STEL	400 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr; CNS impair
OSHA	OSHA PEL TWA	980 mg/m³
OSHA	OSHA PEL TWA	400 ppm
IDLH	IDLH	2000 ppm (10% LEL)
NIOSH	NIOSH REL TWA	980 mg/m³
NIOSH	NIOSH REL TWA	400 ppm

Isopropyl alcohol (67-63-0)		
NIOSH	NIOSH REL STEL	1225 mg/m³
NIOSH	NIOSH REL STEL	500 ppm

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:

Wear chemical resistant gloves

Eye protection:

Chemical goggles or 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	:	Clear yellow liquid
Color	:	Yellow
Odor	:	Slight alcohol with fragrance added
Odor threshold	:	No data available
pH	:	6.25 (5% in solution)
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	> 82.2 °C (180°F)
Flash point	:	13.3 °C (56°F) TCC
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	1.26 Water = 1
Flammability	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	6.75 lb/gal (0.809)
Solubility	:	No data available
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

Non-reactive under normal handling and storage conditions.

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 contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Aluminum.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposes upon heating to produce toxic vapors/gases which include oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Mosquito Halt Repellent Spray for Horses	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 2.04 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 serious 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)	May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : May affect the central nervous system. Symptoms may include dizziness or drowsiness. May cause respiratory tract irritation.

Skin

Acute : May cause mild skin irritation.

Eye

Acute : Causes serious eye irritation.

Ingestion

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

Mutagenicity : Not classified.

Carcinogenicity : Not classified.

Reproductive Effects : Not classified.

SECTION 12: Ecological information

12.1. Toxicity

Permethrin (52645-53-1)	
LC50 Acute fish 1	0.00079 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute fish 2	0.0022 mg/l (Exposure time: 96h - Atlantic silverside)
LC50 Acute crustacea 1	0.000019 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0001 mg/l (Hexagenia bilineuta)
NOEC Chronic fish 1	0.0003 mg/l
NOEC Chronic fish 2	0.00083 mg/l (Sheepshead minnow)
NOEC Chronic crustacea 1	0.000039 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.000011 mg/l (Mysid shrimp)

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)

Prallethrin (23031-36-9)	
LC50 Acute fish 1	0.012 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.022 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute fish 3	0.026 mg/l (Exposure time: 96h - Sheepshead minnow)
EC50 - Crustacea [1]	0.0062 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.003 mg/l (Rainbow trout)
NOEC Chronic fish 2	0.003 mg/l Rainbow trout
NOEC Chronic crustacea 1	0.00065 mg/l (Daphnia magna)

N-Octyl Bicyloheptene Dicarboximide (113-48-4)	
LC50 Acute fish 1	1.4 – 2.4 mg/l
EC50 - Crustacea [1]	2.3 mg/l (Exposure time: 48h - Daphnia magna)

Di-n-propyl Isocinchomeronate (136-45-8)	
LC50 Acute fish 1	1 mg/l (Exposure time: na - Rainbow trout)
LC50 Acute fish 2	0.44 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	18 mg/l (Exposure time: 48h Daphnia)

12.2. Persistence and degradability

Permethrin (52645-53-1)	
Persistence and degradability	Permethrin: not rapidly biodegradable.

12.3. Bioaccumulative potential

Permethrin (52645-53-1)	
Partition coefficient n-octanol/water (Log Pow)	5.95
Bioaccumulative potential	Permethrin: Bioconcentration factor (BCF) 300; Does not bioaccumulate.

N-Octyl Bicyloheptene Dicarboximide (113-48-4)	
Bioconcentration factor (BCF REACH)	330
Partition coefficient n-octanol/water (Log Kow)	3.62

12.4. Mobility in soil

Permethrin (52645-53-1)	
Mobility in soil	Permethrin: Immobile in soil

12.5. Other adverse effects

Mosquito Halt Repellent Spray for Horses	
Ecological Fate	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

13.1. Disposal methods

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

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN1219	Isopropanol solution	3	II	Not applicable
IMDG	UN1219	Isopropanol Solution (Permethrin, prallethrin)	3	II	Marine pollutant
IATA	UN1219	Isopropanol solution	3	II	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Permethrin (52645-53-1)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %

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 %

Di-n-propyl Isocinchomeronate (136-45-8)	
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).

Isopropyl alcohol (67-63-0)	
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 % (only if manufactured by the strong acid process, no supplier notification)

EPA Labelling	
EPA Registration Number	270-328
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	**Warning**
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	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.
FIFRA 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 treatment advice. Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.
FIFRA Environmental hazards	This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product may contaminate water through runoff. This product has potential for runoff for several months or more after application. Poorly draining soils or soils with shallow water tables are more prone to produce runoff 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.
FIFRA Physical hazards	Flammable. Keep away from heat or open flame. Contains alcohol. Do not apply to painted or finished wood surfaces

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date	:	12 March 2015
Revision date	:	28 June 2024
Supersedes	:	21 January 2020

Indication of changes:
Revised Sec. 1: Added material number(s).

SDS US (GHS HazCom 2012) - CGP

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