



Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

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Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Bronco[®] Equine Fly Spray Plus Citronella Scent
Synonyms : 100502327, 100502328, EPA Reg. No.: 270-329

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

Skin sensitization, Category 1 May cause an allergic skin reaction

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS07

Signal word (GHS US) : Warning
Hazard statements (GHS US) : May cause an allergic skin reaction
Precautionary statements (GHS US) : Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. This pesticide 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

Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

3.2. Mixtures

Name	Product identifier	%
Prallethrin	(CAS-No.) 23031-36-9	0.033
Permethrin	(CAS-No.) 52645-53-1	0.1
Piperonyl butoxide	(CAS-No.) 51-03-6	0.5
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 skin contact : May cause an allergic reaction in individuals with a sensitivity to Piperonyl butoxide.

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 spray. Dry powder. Foam. Carbon dioxide.
- 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 : Keep unauthorized personnel away. Move containers away from the fire area if this can be done without risk. Prevent fire-fighting water from entering environment. 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. 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 : Do not scatter spilled material with high pressure water streams. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stay upwind. Stop release. 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. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

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 : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep only in original container. Do not store near heat or open flame.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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 long-sleeved shirt and long pants, and shoes plus socks.

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, colorless liquid
Color	: Colorless
Odor	: Sweet citrus
Odor threshold	: No data available
pH	: 8.2
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93.3 °C (>200 °F) TCC
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.001 @ 20 °C (68 °F)
Solubility	: Miscible
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 10 cP (25 °C) (77 °F)
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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

Prallethrin (23031-36-9)	
LD50 oral rat	3900 mg/kg
LD50 dermal rabbit	1370 mg/kg
LC50 inhalation rat (mg/l)	0.34 mg/l/4h
Permethrin (52645-53-1)	
LD50 oral rat	adult female LD50 • 2280 mg/kg; adult male LD50 • 3580 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	5.3 mg/l/4h
Piperonyl butoxide (51-03-6)	
LD50 oral rat	4300 mg/kg
LD50 dermal rat	> 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	Not classified
Respiratory or skin sensitization	May cause an allergic skin reaction.
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

Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

Inhalation

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

Skin

Acute : May cause an allergic reaction in individuals with a sensitivity to piperonyl butoxide.

Eye

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

Ingestion

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

Mutagenicity

: Prallethrin is not a mutagen. Permethrin was not mutagenic in a battery of in vitro and in vivo tests. Piperonyl butoxide was not mutagenic in a battery of tests.

Carcinogenicity

: Prallethrin is not classified as carcinogen by NTP, IARC and OSHA. Permethrin is not classified as carcinogen by NTP, IARC and OSHA. Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA.

Reproductive Effects

: Prallethrin is not a reproductive toxicant. Permethrin does not cause birth defects or adverse effects on reproduction. Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits.

SECTION 12: Ecological information

12.1. Toxicity

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
LC50 Acute crustacea 1	0.0062 mg/l Exposure time: 48h - Daphnia magna
NOEC Chronic fish 1	0.003 mg/l Rainbow trout
NOEC Chronic crustacea 1	0.00065 mg/l Daphnia magna
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 bilineata)
NOEC Chronic fish 1	0.0003 mg/l (Fathead minnow)
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)

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.

12.4. Mobility in soil

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

Bronco® Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

12.5. Other adverse effects

Bronco® Equine Fly Spray Plus Citronella Scent

Ecological Fate

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. This pesticide is highly toxic to bees exposed to direct treatment or residues 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.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3082	Bulk packaging only: Environmentally hazardous substance, liquid, n.o.s (Permethrin and Prallethrin)	9	III	Marine pollutant
IMDG	UN3082	Packaging greater than 5 L: Environmentally Hazardous Substance, Liquid, N.O.S. (Permethrin and Prallethrin)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous Substance, Liquid, N.O.S. (Permethrin and Prallethrin)	9	III	Acute aquatic toxicity

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 %

FIFRA Labelling

EPA Registration Number 270-329

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 Precautionary Statement KEEP OUT OF REACH OF CHILDREN.

FIFRA Environmental Hazards This product is extremely toxic to aquatic organisms, including fish and invertebrates. 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 treatment area. This pesticide is extremely 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

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Bronco[®] Equine Fly Spray Plus Citronella Scent

Safety Data Sheet

SDS US (GHS HazCom 2012) - CGP

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