



Repel-X Insecticide & Repellent

Safety Data Sheet

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Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Name : Repel-X Insecticide & Repellent
Synonyms : 100551184, EPA Reg. No.: 270-294

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

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards which do not result in 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 not 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	%
Pyrethrins	(CAS-No.) 8003-34-7	0.05
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.

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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)

No additional information available

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.
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

Pyrethrins (8003-34-7)		
ACGIH	ACGIH OEL TWA	5 mg/m ³
ACGIH	Remark (ACGIH)	Liver dam; LRT irr
OSHA	OSHA PEL TWA	5 mg/m ³
IDLH	IDLH	5000 mg/m ³
NIOSH	NIOSH REL TWA	5 mg/m ³

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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, long pants, socks and shoes

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	: Thin milky white liquid
Color	: Milky white
Odor	: Citronella
Odor threshold	: No data available
pH	: 6 – 8 (3% aq. dispersion)
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93.3 °C (>200 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1 @ 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
Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 150 cP (20 °C) (68 °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.

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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

Do not use this product in or on electrical equipment where a possibility of shock hazard exists.

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

Repel-X Insecticide & Repellent	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 3.55 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	Not classified
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

Inhalation

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

Skin

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

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

: 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. 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

: Pyrethrins are not listed as a carcinogen by OSHA, IARC, or NTP. Permethrin is not classified as carcinogen by OSHA, IARC or NTP. Piperonyl butoxide is not classified as a carcinogen by IARC, NTP, OSHA.

Reproductive Effects

: Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits. 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

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Pyrethrins (8003-34-7)	
LC50 Acute fish 1	0.0051 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.016 mg/l (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.0014 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0116 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.0019 mg/l (Fathead minnow)
NOEC Chronic fish 2	0.0059 mg/l (Sheepshead minnow - Estimated)
NOEC Chronic crustacea 1	0.00086 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.0001 mg/l (Mysid shrimp - Estimated)

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)

12.2. Persistence and degradability

Pyrethrins (8003-34-7)	
Persistence and degradability	Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.

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

12.5. Other adverse effects

Repel-X Insecticide & Repellent	
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

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DOT	UN3082	Packaging greater than 2000 lbs.: Environmentally hazardous substance, liquid, n.o.s (Pyrethrins and Permethrin)	9	III	RQ Pyrethrins = 1 lb.
IMDG	UN3082	Packaging greater than 5 L: Environmentally Hazardous Substance, Liquid, N.O.S. (Pyrethrins and Permethrin)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous Substance, Liquid, N.O.S. (Pyrethrins and Permethrin)	9	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

Pyrethrins (8003-34-7)	
CERCLA RQ	1 lb listed under Pyrethrins
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 %
EPA Labelling	
EPA Registration Number	270-294
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	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. For external use only. Do not use on animals under three months of age or on sick, old, debilitated or medicated pets. Do not apply to horses or foals intended for slaughter. Do Not Use on Cats. Sensitivities may occur after using ANY pesticide product for 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.
FIFRA First aid	If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
FIFRA Environmental hazards	This pesticide 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 the treatment area. 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 foraging the treatment area.
FIFRA Physical hazards	Do not use this product in or on electrical equipment due to the possibility of shock hazard

15.2. US State regulations

No additional information available

SECTION 16: Other information

Issue date	: 02 November 2015
Revision date	: 08 October 2024
Supersedes	: 24 March 2020

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Indication of changes:

Revised Sec. 1: Revised material number(s).

SDS US (GHS HazCom 2012) - CGP

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