



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Ready To Use Repel-X Insecticide & Repellent**

Synonyms • 10330; EPA Reg. No.: 270-294

Product Description • Thin milky white liquid.

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

Recommended use • Insecticide and repellent.

Restrictions on use • Keep out of reach of children. Avoid contact with eyes, skin or clothing. For animal use only. For external use only.

Details of the supplier of the safety data sheet

Manufacturer • Farnam Companies, Inc.
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States

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 • Not classified; does not meet hazard criteria.

Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

Other hazards

OSHA HCS 2012 • This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard. This product is toxic to fish.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	Identifiers	%
Pyrethrins	CAS:8003-34-7	0.05%
Permethrin	CAS:52645-53-1	0.1%
Piperonyl butoxide	CAS:51-03-6	0.5%
Other ingredients	NDA	99.35%

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 control center or doctor for further treatment advice.
- Skin**
- IF ON SKIN: 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.
- Eye**
- IF IN EYES: Hold eye open and rinse 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.
- Ingestion**
- IF SWALLOWED: Call a POISON CONTROL center or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

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.
- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.
- Firefighting Procedures**
- Move containers from fire area if you can do it without risk.
Use extinguishing agent suitable for type of surrounding fire.
Do not allow fire fighting water to escape into waterways or sewers.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- No data available.

- Hazardous Combustion Products**
- No data available.

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**
- Use appropriate Personal Protective Equipment (PPE). Avoid contact with skin, eyes, and clothing. Ventilate the area.
- Emergency Procedures**
- Do not allow runoff into water, storm drains or drainage ditches.

Environmental precautions

- Contain and prevent from release into any waterway, sewer or drain.

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.

Section 7 - Handling and Storage

Precautions for safe handling

- Handling**
- Avoid contact with skin, eyes, and clothing. Wash hands thoroughly with soap and water after handling. Wear appropriate personal protective equipment, avoid direct contact. Do not use this product in or on electrical portions of equipment due to the possibility of shock hazard.

Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a cool/low-temperature, well-ventilated, dry place. Keep container tightly closed.
- Incompatible Materials or Ignition Sources**
- Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food and feed.

Other Information

- See product label for additional information.

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

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

Personal Protective Equipment

Pictograms



Respiratory

- If handling without sufficient ventilation, wear a NIOSH approved respirator with organic cartridge.

Eye/Face

- Wear chemical splash safety goggles.

- Hands**
- Wear chemical resistant gloves.
- Skin/Body**
- If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.
- General Industrial Hygiene Considerations**
- Do not get in eyes or on skin or clothing. Handle in accordance with good industrial hygiene and safety practice.
- Environmental Exposure Controls**
- 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	Thin milky white liquid.
Color	Milky white.	Odor	Citronella
Odor Threshold	No data available		
General Properties			
Boiling Point	212°F (100°C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	6-8 (3% aqueous dispersion)
Specific Gravity/Relative Density	1.0 @ 20°C	Density	No data available
Water Solubility	Miscible	Viscosity	< 150 Centipoise (cPs, cP) or mPas @ 20 C(68 F)
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	> 200 F(> 93.3333 C)	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

- No data available.

Incompatible materials

- No data available.

Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

Information on toxicological effects

	CAS	
Ready To Use Repel-X Insecticide & Repellent	NDA	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Inhalation-Rat LC50 • >3.55 mg/L 4 Hour(s); Skin-Rabbit LD50 • >2000 mg/kg; Irritation: Eye-Rabbit • Essentially non-irritating; Skin-Rabbit • Essentially non-irritating

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Classification criteria not met
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
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 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	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)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Mutagenic Effects

- Permethrin did not produce any mutagenic effects when tested in the Ames assay. Piperonyl butoxide was not genotoxic in several tests, including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells. 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.

Carcinogenic Effects

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

Reproductive Effects

- Permethrin did not cause developmental toxicity in rats and rabbits. Permethrin did not cause reproductive toxicity in a two-generation study in rats. Permethrin was not teratogenic when tested in rats. Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters (except weight gain) in tests with rats and rabbits. Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits.

Section 12 - Ecological Information**Toxicity**

Components		
Pyrethrins (0.05%)	8003-34-7	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow trout</i> 0.0051 mg/L [Acute] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 0.016 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.0019 mg/L [Chronic] NOEC <i>Sheepshead minnow</i> 0.0059 mg/L [Chronic (Est.)] Aquatic Toxicity-Crustacea: LC50 <i>Daphnia magna</i> 0.00086 mg/L [Chronic] NOEC <i>Mysid shrimp</i> 0.0001 mg/L [Chronic (Est.)] 48 Hour(s) LC50 <i>Daphnia magna</i> 0.0116 mg/L [Acute] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.0014 mg/L [Acute]
Piperonyl butoxide (0.5%)	51-03-6	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Rainbow Trout</i> 1.9 mg/L [Acute] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 3.94 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.04 mg/L [Chronic] <i>Fathead minnow</i> 0.11 mg/L [Chronic LOEC] Aquatic Toxicity-Crustacea: <i>Daphnia magna</i> 0.047 mg/L [Chronic LOEC] 48 Hour(s) LC50 <i>Daphnia magna</i> 0.51 mg/L [Acute] 48 Hour(s) LC50 <i>Mysid shrimp</i> 0.49 mg/L [Acute] NOEC <i>Daphnia magna</i> 0.03 mg/L [Chronic]
Permethrin (0.1%)	52645-53-1	Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Blue gill</i> 0.00079 mg/L [Acute] 96 Hour(s) LC50 <i>Atlantic silverside</i> 0.0022 mg/L [Acute] NOEC <i>Fathead minnow</i> 0.0003 mg/L [Chronic] NOEC <i>Sheepshead minnow</i> 0.00083 mg/L [Chronic] Aquatic Toxicity-Crustacea: NOEC <i>Daphnia magna</i> 0.000039 mg/L [Chronic] NOEC <i>Mysid shrimp</i> 0.000011 mg/L [Chronic] LC50 <i>Hexagenia bilineata</i> 0.0001 mg/L [Acute] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.000019 mg/L [Acute]

Persistence and degradability

- No data available

Bioaccumulative potential

- No data available

Mobility in Soil

- No data available

Other adverse effects

- No data available.

Potential Environmental Effects

- This product is toxic to fish.

Other Information

- 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. Do not empty into drains.
- Packaging waste**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	None	Not regulated (applies to non-bulk packaging only)	Not Applicable	Not Applicable	Not Applicable
	UN3082	Environmentally hazardous substance, liquid, n.o.s (Pemethrin, Piperonyl butoxide, Pyrethrins)	9	III	Marine Pollutant
IMO/IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s (Pemethrin, Piperonyl butoxide, Pyrethrins)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Environmentally hazardous substance, liquid, n.o.s (Pemethrin, Piperonyl butoxide, Pyrethrins)	9	III	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, Not regulated

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 • PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION Not for use on humans. Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Hazards to Domestic Animals: For external use only. Do not use on animals under three months of age or on sick, old, debilitated or medicated pets. 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.

First Aid • IF SWALLOWED • Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. 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. IF INHALED • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice. 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. IF ON SKIN • 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.

Environmental Hazards • This product is toxic to fish. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards • Do not use this product in or on electrical portions of equipment due to the possibility of shock hazard.

Inventory		
Component	CAS	TSCA
Permethrin	52645-53-1	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

• Permethrin	52645-53-1	Not Listed
• Piperonyl butoxide	51-03-6	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

• Permethrin	52645-53-1	1.0 % de minimis concentration
• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration
• Pyrethrins	8003-34-7	Not Listed

Section 16 - Other Information

Revision Date	• 02/November/2015
Last Revision Date	• 02/November/2015
Preparation Date	• 30/October/2015
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