

ROLF C. HAGEN INC., 20500 TRANSCANDA HWY,
BAIE D'URFÉ, QUEBEC, H9X 0A2
CANADA

Sentry Flea, Tick & Mosquito

Squeeze-On for Dogs (over 30 kg)

70026

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Section I. Product and Company Identification

Product name	Sentry Flea, Tick & Mosquito Squeeze-On for Dogs (over 30 kg)
CAS #	Mixture
P.C.P. ACT REG. #	31610
Use	Domestic insecticide
Supplier	Rolf C. Hagen Inc., 20 500 Trans Canada Hwy, Baie d'Urfé, H9X 0A2
Emergency	Call your local poison control center

Section II. Hazards Identification**OSHA/HCS status:**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Classification of the substance or mixture:

Flammable Liquids, Category 3
Acute Toxicity (Inhalation), Category 4
Serious Eye Damage / Eye Irritation, Category 2B
Aquatic Hazard (Acute), Category 1
Aquatic Hazard (Long Term), Category 1

GHS label elements**Hazard pictograms:**

Signal word : Warning

Hazard statements :

Flammable liquid and vapor.
Harmful if inhaled.
Causes eye irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion proof electrical, ventilating, lighting and all material-handling equipment. Use only nonsparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash hands



MATERIAL SAFETY DATA SHEET

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thoroughly after handling.
Response: Collect spillage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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 attention.
Storage: Store in a well-ventilated place. Keep cool.
Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified: None known.

Section III. Composition and Information on Ingredients			
Ingredients	Conc. (%)	CAS #	EC #
Permethrin	30-60	52645-53-1	258-067-9
D-Limonene	10-30	5989-27-5	227-813-5
Pyriproxyfen	1-5	95737-68-1	Not applicable

Section IV. First Aid Measures	
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
Skin contact	Remove the contaminated clothes and flush with cool water. Wash with plenty of water and soap. Get medical attention if symptoms occur. Wash clothing and shoes before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Ingestion	Wash out mouth with water. If present, remove dentures. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention

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if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section V. Fire Fighting Measures	
Suitable extinguishing media	
Dry chemical, carbon dioxide, water spray (fog) or foam. Do not use water jet or water based extinguishers.	
Specific hazards arising from the chemical	
Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides and halogenated compounds.	
Special protective actions for fire-fighters	
Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

Section VI. Accidental Release Measures	
Person-related safety precautions	For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Measures for environmental protection	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Measures for cleaning/collecting	Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a

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licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Section VII. Handling and Storage	
Protective measures	
Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes or on skin or clothing. Do not breathe vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.	
Advice on general occupational hygiene for safe storage, including any incompatibilities	
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.	
Conditions for safe storage, including any incompatibilities	
Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.	

Section VIII. Exposure Controls and Personal Protection	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Protective	Eye/face protection Safety eyewear complying with an approved standard should be

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clothing	<p>used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.</p> <p>Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.</p> <p>Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.</p> <p>Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</p> <p>Respiratory protection: Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.</p>
Engineering controls	<p>Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.</p>

Section IX. Physical and Chemical Properties	
Appearance (physical state, color, etc) / Odor	Clear, pale yellow liquid with characteristic odor
Odor threshold	Data not available
pH	Data not available
Melting point / Freezing point	Data not available
Initial boiling point and boiling range	Data not available
Flash point	Closed cup: 54 °C
Evaporation rate	Data not available
Flammability (solid, gas)	Data not available
Upper / Lower flammability limits (% volume)	Data not available

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Specific gravity	1.02-1.15 g/ml
Vapor pressure	Data not available
Vapor density	Data not available
% Volatile	Data not available
% VOC content (w/w)	15.8
Solubility	Insoluble in cold and hot water
Coefficient of Water/Oil distribution	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

Section X. Stability and Reactivity	
Instability conditions	Stable under recommended storage conditions.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	Oxidizing materials
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	Does not occur under recommended storage conditions and use.

Section XI. Toxicological Information	
Route of exposure	Conclusion / Remarks
Skin	No known significant effects or critical hazards.
Eye	Causes eye irritation. Adverse symptoms may include irritation, watering, redness.
Inhalation	Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	May be irritating to mouth, throat and stomach.
Mutagenicity	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards IARC - Group 3 (Not Classifiable) Permethrin 52645-53-1 D-Limonene 5989-27-5
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

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Acute toxicity	ATE value Inhalation (dusts and mists) 3.233 mg/L																													
	LD ₅₀ Dermal Rat - Male, Female >5,000 mg/kg LD ₅₀ Oral Rat - Female >5,000 mg/kg																													
Irritation/Corrosion	Component analysis																													
	Permethrin 52645-53-1																													
	LD ₅₀ Dermal Rat 1,750 mg/kg LD ₅₀ Oral Rat 383 mg/kg																													
	Pyriproxyfen 95737-68-1																													
	LD ₅₀ Dermal Rat >2,000 mg/kg LD ₅₀ Oral Rat >5,000 mg/kg																													
	D-Limonene 5989-27-5																													
	LD ₅₀ Dermal Rabbit >5,000 mg/kg LD ₅₀ Oral Rat 4,400 mg/kg																													
Chronic Effects	No known significant effects or critical hazards.																													
Sensitization	<table border="1"> <thead> <tr> <th>Product/Ingredient</th> <th>Result</th> <th>Species</th> <th>Exposure</th> <th>Observation</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Sentry Flea, Tick & Mosquito Squeeze-On for Dogs (up to 15 kg)</td> <td>Skin - Mild irritant</td> <td>Rabbit</td> <td>4 Hrs 0.5 mL</td> <td>72 Hrs</td> </tr> <tr> <td>Eyes - Mild irritant</td> <td>Rabbit</td> <td>0.1 mL</td> <td>72 Hrs</td> </tr> <tr> <td>Permethrin</td> <td>Skin - Mild irritant</td> <td>Rabbit</td> <td>24 Hrs 500 mg</td> <td>-</td> </tr> <tr> <td>Pyriproxyfen</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>D-Limonene</td> <td>Skin - Mild irritant</td> <td>Rabbit</td> <td>24 Hrs 10%</td> <td>-</td> </tr> </tbody> </table>	Product/Ingredient	Result	Species	Exposure	Observation	Sentry Flea, Tick & Mosquito Squeeze-On for Dogs (up to 15 kg)	Skin - Mild irritant	Rabbit	4 Hrs 0.5 mL	72 Hrs	Eyes - Mild irritant	Rabbit	0.1 mL	72 Hrs	Permethrin	Skin - Mild irritant	Rabbit	24 Hrs 500 mg	-	Pyriproxyfen					D-Limonene	Skin - Mild irritant	Rabbit	24 Hrs 10%	-
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Skin - Guinea pig: Not sensitizing																														

Section XII. Ecological Information	
Ecotoxicity	ATE = Acute EC ₅₀ 0.00015 mg/L 48 hours (% unknown and assumed non-hazardous: 38.1%)
	Component analysis
	Permethrin 52645-53-1
	Acute EC ₅₀ 68 µg/L Marine water Algae - <i>Skeletonema costatum</i> - Exponential growth phase 96 Hrs Acute EC ₅₀ 0.11 µg/L Fresh water Crustaceans - <i>Orconectes immunitis</i> 48 Hrs Acute EC ₅₀ 0.151 ppb Fresh water Daphnia - <i>Daphnia magna</i> 48 Hrs Acute LC ₅₀ 0.62 µg/L Fresh water Fish - <i>Oncorhynchus mykiss</i> 96 Hrs Chronic NOEC 0.039 ppb Marine water Daphnia - <i>Daphnia magna</i> 21 days Chronic NOEC 0.3 ppb Fresh water Fish - <i>Pimephales promelas</i> 246 days
	D-Limonene 5989-27-5
	Acute EC ₅₀ 421 µg/L Fresh water Daphnia - <i>Daphnia magna</i> 48 Hrs Acute EC ₅₀ 688 µg/L Fresh water Fish - <i>Pimephales promelas</i> 96 Hrs
	Pyriproxyfen 95737-68-1
	Acute EC ₅₀ 56 ppb Fresh water Algae - <i>Pseudokirchneriella subcapitata</i> 72 Hrs Acute LC ₅₀ 80 µg/L Fresh water Daphnia - <i>Daphnia carinata</i> - Neonate 48 Hrs



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	Acute LC ₅₀ 270 ppb Fresh water Fish - <i>Lepomis macrochirus</i> 96 Hrs Chronic NOEC 0.01 ppb Marine water Daphnia - <i>Daphnia magna</i> 21 days Chronic NOEC 4.3 ppb Fish - <i>Oncorhynchus mykiss</i> 95 days												
Mobility	Not available												
Persistence and Degradability	Not available												
Bioaccumulation potential	<table border="1"> <thead> <tr> <th>Product/Ingredient</th> <th>LogP_{ow}</th> <th>BFC</th> <th>Potential</th> </tr> </thead> <tbody> <tr> <td>Permethrin</td> <td>6.5</td> <td>-</td> <td>high</td> </tr> <tr> <td>D-Limonene</td> <td>4.38</td> <td>1022</td> <td>high</td> </tr> </tbody> </table>	Product/Ingredient	LogP _{ow}	BFC	Potential	Permethrin	6.5	-	high	D-Limonene	4.38	1022	high
	Product/Ingredient	LogP _{ow}	BFC	Potential									
	Permethrin	6.5	-	high									
D-Limonene	4.38	1022	high										

Section XIII. Disposal Considerations	
Disposal recommendations	The generation of waste should be avoided or minimized wherever possible. Dispose of in accordance with federal, provincial and local regulations. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. If empty: Do not reuse this container. Wrap empty container and put in trash or recycle. If partly filled: Call your local solid waste agency for disposal information. Never place unused product down any indoor or outdoor drain.
Disposal of damaged packaging	If the container contains residue of a hazardous product, follow all MSDS and label precautions even after container is emptied.
Regulatory disposal information	Data not available

Section XIV. Transport Information	
D.O.T. Classification	
UN1993, FLAMMABLE LIQUID, N.O.S (D-Limonene), Class 3	
 	
Packaging group III	
Environmental hazard : Yes	
Additional information: This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials, unless transported by vessel.	
The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or	



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≤5 kg or by road, rail, or inland air in non-bulk sizes.
Remarks: Limited Quantity Exemption

Special precautions for user:
Transport within user's premises: always transport in closed containers that are upright and secure.
Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section XV. Regulatory Information
Exposure limits None
GHS Classification of pure substance Permethrin 52645-53-1 Acute Toxicity (Oral), Category 4 Acute Toxicity (Inhalation), Category 4 Skin Sensitization, Category 1 Aquatic Hazard (Acute), Category 1 Aquatic Hazard (Long Term), Category 1 D-Limonene 5989-27-5 Flammable Liquids, Category 3 Skin Corrosion/Irritation, Category 2 Skin Sensitization, Category 1 Aquatic Hazard (Acute), Category 1 Aquatic Hazard (Long Term), Category 1 Pyriproxyfen 95737-68-1 Aquatic Hazard (Acute), Category 1 Aquatic Hazard (Long Term), Category 1
Canadian Regulations WHMIS Classification: Not applicable
U.S. Federal regulations United States inventory (TSCA 8b): All components are listed or exempted. Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed Clean Air Act Section 602 Class I Substances: Not listed Clean Air Act Section 602 Class II Substances: Not listed DEA List I Chemicals (Precursor Chemicals): Not listed DEA List II Chemicals (Essential Chemicals): Not listed
State regulations Massachusetts: The following components are listed: Permethrin



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New York: The following components are listed: Permethrin
New Jersey: The following components are listed: Permethrin, Pyriproxyfen
Pennsylvania: None of the components are listed.

California Prop. 65

No products were found.

Section XVI. Other information

While the company believes the data set forth herein are accurate as the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration and verification.

Prepared by Rolf C. Hagen Inc.
(514) 457-0914

Validated: December 22nd, 2014