

ROLF C. HAGEN INC., 20500 TRANSCANDA HWY,  
BAIE D'URFÉ, QUEBEC, H9X 0A2  
CANADA**Sentry Flea, Tick & Mosquito****Squeez-On for Dogs (up to 15 kg)**

70025

Page 1 of 13

**Section I. Product and Company Identification**

Product name	Sentry Flea, Tick & Mosquito Squeez-On for Dogs (up to 15 kg)
CAS #	Mixture
P.C.P. ACT REG. #	31611
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 (Oral), Category 4  
Acute Toxicity (Inhalation), Category 4  
Skin Corrosion/ Irritation, Category 2  
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 swallowed or inhaled.  
Causes skin irritation.  
May cause an allergic skin reaction.  
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 protective clothing. 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



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

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 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.

**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 #
Permethrin (ISO)	≥25 - ≤50	52645-53-1
(R)-p-mentha-1,8-diene	≥10 - ≤25	5989-27-5
2-(1-Methyl-2-(4-phenoxyphenoxy)ethoxy)pyridin	≥1 - ≤3	95737-68-1

Section IV. First Aid Measures	
Description of Necessary 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	Wash with plenty of water and soap. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention if symptoms occur. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. 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



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

<p>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. If necessary, call a poison center or physician. 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.</p>	
<b>Most Important Symptoms/Effects, Acute and Delayed</b>	
<b>Potential Acute Health Effects</b>	
Eye contact	No known significant effects or critical hazards.
Inhalation	Harmful if inhaled.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	Harmful if swallowed
<b>Over exposure signs and symptoms</b>	
Eye contact	Adverse symptoms may include the following: pain, irritation, watering, and redness.
Inhalation	No known significant effects or critical hazards.
Skin Contact	Adverse symptoms may include the following: irritation and redness.
Ingestion	No known significant effects or critical hazards.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	
Notes to physician	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.
Specific treatments	No specific treatment.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

<b>Section V. Fire Fighting Measures</b>	
<b>Suitable extinguishing media</b>	
Dry chemical, carbon dioxide, water spray (fog) or foam. Do not use water jet or water based extinguishers.	
<b>Specific hazards arising from the chemical</b>	
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.	
<b>Special protective actions for fire-fighters</b>	

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

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.

<b>Section VI. Accidental Release Measures</b>	
Person-related safety precautions	<p>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.</p> <p>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".</p>
Measures for cleaning/collecting	<p>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 licensed waste disposal contractor.</p> <p>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.</p>

<b>Section VII. Handling and Storage</b>
<p><b>Protective measures</b></p> <p>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.</p>

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

<b>Advice on general occupational hygiene for safe storage, including any incompatibilities</b>
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.
<b>Conditions for safe storage, including any incompatibilities</b>
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.

<b>Section VIII. Exposure Controls and Personal Protection</b>	
<b>Individual protection measures</b>	
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 clothing	<p><b>Eye/face protection</b> Safety eyewear complying with an approved standard should be 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><b>Hand protection:</b> 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><b>Body protection:</b> 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><b>Other skin protection:</b> 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>



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

	<p><b>Respiratory protection:</b> 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	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.								
Occupational exposure limits	<table border="1"> <thead> <tr> <th>Ingredient</th> <th>Exposure Limits</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>None</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>AIHA WEEL (United States, 7/2018). TWA: 30 ppm 8 hours</td> </tr> <tr> <td>2-(1-Methyl-2-(4-phenoxyphenoxy)ethoxy)pyridin</td> <td>None</td> </tr> </tbody> </table>	Ingredient	Exposure Limits	Permethrin (ISO)	None	(R)-p-mentha-1,8-diene	AIHA WEEL (United States, 7/2018). TWA: 30 ppm 8 hours	2-(1-Methyl-2-(4-phenoxyphenoxy)ethoxy)pyridin	None
Ingredient	Exposure Limits								
Permethrin (ISO)	None								
(R)-p-mentha-1,8-diene	AIHA WEEL (United States, 7/2018). TWA: 30 ppm 8 hours								
2-(1-Methyl-2-(4-phenoxyphenoxy)ethoxy)pyridin	None								

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 (129.2 ° F)
Evaporation rate	Data not available
Flammability (solid, gas)	Data not available
Upper / Lower flammability limits (% volume)	Data not available
Specific gravity	1.02-1.07 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

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeeze-On for Dogs (up to 15 kg)</b>
70025

Page 7 of 13
--------------

Decomposition temperature	Data not available
Viscosity	Data not available

<b>Section X. Stability and Reactivity</b>	
Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of Hazardous Reactions	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.

<b>Section XI. Toxicological Information</b>																					
<b>Information on toxicological effects</b>																					
Acute toxicity	<table border="1"> <thead> <tr> <th>Product/ Ingredient</th> <th>Result</th> <th>Species</th> <th>Dose</th> <th>Exposure</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>LD<sub>50</sub> Oral</td> <td>Rat</td> <td>383 mg/kg</td> <td>-</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>LD<sub>50</sub> Dermal</td> <td>Rabbit</td> <td>&gt;5000 mg/kg</td> <td>-</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>LD<sub>50</sub> Oral</td> <td>Rat</td> <td>4400 mg/kg</td> <td>-</td> </tr> </tbody> </table>	Product/ Ingredient	Result	Species	Dose	Exposure	Permethrin (ISO)	LD <sub>50</sub> Oral	Rat	383 mg/kg	-	(R)-p-mentha-1,8-diene	LD <sub>50</sub> Dermal	Rabbit	>5000 mg/kg	-	(R)-p-mentha-1,8-diene	LD <sub>50</sub> Oral	Rat	4400 mg/kg	-
Product/ Ingredient	Result	Species	Dose	Exposure																	
Permethrin (ISO)	LD <sub>50</sub> Oral	Rat	383 mg/kg	-																	
(R)-p-mentha-1,8-diene	LD <sub>50</sub> Dermal	Rabbit	>5000 mg/kg	-																	
(R)-p-mentha-1,8-diene	LD <sub>50</sub> Oral	Rat	4400 mg/kg	-																	
Irritation/ Corrosion	<table border="1"> <thead> <tr> <th>Product/ Ingredient</th> <th>Result</th> <th>Species</th> <th>Score</th> <th>Exposure</th> <th>Observation</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>Skin - Mild irritant</td> <td>Rabbit</td> <td>-</td> <td>24 hours 500 mg</td> <td>-</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>Skin - Mild irritant</td> <td>Rabbit</td> <td>-</td> <td>24 hours 10%</td> <td>-</td> </tr> </tbody> </table>	Product/ Ingredient	Result	Species	Score	Exposure	Observation	Permethrin (ISO)	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-	(R)-p-mentha-1,8-diene	Skin - Mild irritant	Rabbit	-	24 hours 10%	-		
Product/ Ingredient	Result	Species	Score	Exposure	Observation																
Permethrin (ISO)	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-																
(R)-p-mentha-1,8-diene	Skin - Mild irritant	Rabbit	-	24 hours 10%	-																



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeeze-On for Dogs (up to 15 kg)</b>
70025

Sensitization	There is no data available.												
Mutagenicity	There is no data available.												
Carcinogenicity	<table border="1"> <thead> <tr> <th>Product/ Ingredient</th> <th>OSHA</th> <th>IARC</th> <th>NTP</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>-</td> <td>3</td> <td>-</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>-</td> <td>3</td> <td>-</td> </tr> </tbody> </table>	Product/ Ingredient	OSHA	IARC	NTP	Permethrin (ISO)	-	3	-	(R)-p-mentha-1,8-diene	-	3	-
	Product/ Ingredient	OSHA	IARC	NTP									
	Permethrin (ISO)	-	3	-									
(R)-p-mentha-1,8-diene	-	3	-										
Reproductive Toxicity	There is no data available.												
Teratogenicity	There is no data available.												
Specific target organ toxicity (single exposure)	There is no data available.												
Specific target organ toxicity (repeated exposure)	There is no data available.												
Aspiration hazard	<table border="1"> <thead> <tr> <th>Name</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>ADPARATION HAZARD- Category 1</td> </tr> </tbody> </table>	Name	Result	(R)-p-mentha-1,8-diene	ADPARATION HAZARD- Category 1								
	Name	Result											
(R)-p-mentha-1,8-diene	ADPARATION HAZARD- Category 1												
Information on the likely route of exposure	Dermal contact. Eye contact. Inhalation. Ingestion.												
Chronic effects	No known significant effects or critical hazards.												
<b>Potential acute health effects</b>													
Eye contact	No known significant effects or critical hazards.												
Inhalation	Harmful if inhaled.												
Skin contact	Causes skin irritation. May cause an allergic skin reaction												
Ingestion	Harmful if swallowed.												
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>													
Eye contact	Adverse symptoms may include the following: <ul style="list-style-type: none"> <li>• pain or irritation</li> <li>• watering</li> <li>• redness</li> </ul>												
	Inhalation	No known significant effects or critical hazards											
	Skin contact	Adverse symptoms may include the following: <ul style="list-style-type: none"> <li>• irritation</li> <li>• redness</li> </ul>											
Ingestion		No known significant effects or critical hazards											
<b>Delayed and immediate effects and also chronic effects from short and long term exposure</b>													



<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

Short term exposure	Potential immediate effects: No known significant effects or critical hazards. Potential delayed effects: No known significant effects or critical hazards.						
Long term exposure	Potential immediate effects: No known significant effects or critical hazards. Potential delayed effects: No known significant effects or critical hazards.						
Potential chronic health effects	General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Carcinogenicity: No known significant effects or critical hazards. Mutagenicity: No known significant effects or critical hazards. Teratogenicity: No known significant effects or critical hazards. Developmental effects: No known significant effects or critical hazards. Fertility effects: No known significant effects or critical hazards.						
<b>Numerical measures of toxicity</b>							
Acute toxicity estimate	<table border="1"> <thead> <tr> <th>Route</th> <th>ATE Value</th> </tr> </thead> <tbody> <tr> <td>Oral</td> <td>851.09 mg/kg</td> </tr> <tr> <td>Inhalation (dusts and mists)</td> <td>3.33 mg/L</td> </tr> </tbody> </table>	Route	ATE Value	Oral	851.09 mg/kg	Inhalation (dusts and mists)	3.33 mg/L
	Route	ATE Value					
	Oral	851.09 mg/kg					
Inhalation (dusts and mists)	3.33 mg/L						

<b>Section XII. Ecological Information</b>		
Ecotoxicity	<b>Component analysis</b> <b>Permethrin (ISO)</b> Acute EC <sub>50</sub> 68 µg/L Marine water Algae - <i>Skeletonema costatum</i> - Exponential growth phase 96 Hrs Acute EC <sub>50</sub> 0.11 µg/L Fresh water Crustaceans - <i>Orconectes immnis</i> 48 Hrs Acute EC <sub>50</sub> 0.151 ppb Fresh water Daphnia - <i>Daphnia magna</i> 48 Hrs Acute LC <sub>50</sub> 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 <b>(R)-p-mentha-1,8-diene</b> Acute EC <sub>50</sub> 421 µg/L Fresh water Daphnia - <i>Daphnia magna</i> 48 Hrs Acute EC <sub>50</sub> 688 µg/L Fresh water Fish - <i>Pimephales promelas</i> 96 Hrs <b>2-(1-Methyl-2-(4-phenoxyphenoxy) ethoxy)pyridine</b> Acute EC <sub>50</sub> 56 ppb Fresh water Algae - <i>Pseudokirchneriella subcapitata</i> 72 Hrs Acute LC <sub>50</sub> 80 µg/L Fresh water Daphnia - <i>Daphnia carinata</i> - Neonate 48 Hrs Acute LC <sub>50</sub> 0.45 ppm Fresh water Fish - <i>Oncorhynchus mykiss</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

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

Persistence and Degradability	Not available												
Bioaccumulation potential	<table border="1"> <thead> <tr> <th>Product/Ingredient</th> <th>LogP<sub>ow</sub></th> <th>BFC</th> <th>Potential</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>6.5</td> <td>-</td> <td>high</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>4.38</td> <td>-</td> <td>high</td> </tr> </tbody> </table>	Product/Ingredient	LogP <sub>ow</sub>	BFC	Potential	Permethrin (ISO)	6.5	-	high	(R)-p-mentha-1,8-diene	4.38	-	high
	Product/Ingredient	LogP <sub>ow</sub>	BFC	Potential									
	Permethrin (ISO)	6.5	-	high									
(R)-p-mentha-1,8-diene	4.38	-	high										






Section XIII. Disposal Considerations	
Disposal recommendations	<p>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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.</p>
Regulatory disposal information	Data not available

Section XIV. Transport Information			
	<b>DOT Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	UN1993	UN1993	UN1993
<b>UN proper shipping name</b>	FLAMMABLE LIQUID, N.O.S ((R)-p-mentha-1,8-diene)	FLAMMABLE LIQUID, N.O.S ((R)-p-mentha-1,8-diene). Marine pollutant (Permethrin (ISO), (R)-p-mentha-1,8-diene)	FLAMMABLE LIQUID, N.O.S ((R)-p-mentha-1,8-diene)

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

Page 11 of 13

<b>Transport class(es)</b>	<b>hazard</b>	Class 3  	Class 3  	Class 3 
<b>Packaging group</b>		III	III	III
<b>Environmental hazards</b>		Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

**AERG : 128**

<b>Additional information:</b>	
DOT Classification:	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. This product is not regulated as a marine when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a
IMDG:	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
IATA:	The environmentally hazardous substance mark may appear if required by other transportation regulations.
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.

<b>Section XV. Regulatory Information</b>	
<b>Exposure limits</b>	None
<b>Canadian Regulations</b>	
WHMIS Classification	Not applicable
<b>U.S. Federal regulations</b>	
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



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

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																
<u>SARA 302/ 304</u>	No products were found. SAR 304 RQ: Not Applicable																
<u>SARA 311/312</u>	<p><b>Classification:</b>            Flammable Liquids - Category 3            Acute Toxicity (oral) - Category 4            Acute Toxicity (inhalation) - Category 4            Skin Corrosion/Irritation, Category 2            Skin Sensitization, Category 1</p> <p><b>Composition/ Information on ingredients:</b></p> <table border="1"> <thead> <tr> <th>Name</th> <th>Classification</th> </tr> </thead> <tbody> <tr> <td>Permethrin (ISO)</td> <td>Acute Toxicity (Oral), Category 4</td> </tr> <tr> <td>Permethrin (ISO)</td> <td>Acute Toxicity (Inhalation), Category 4</td> </tr> <tr> <td>Permethrin (ISO)</td> <td>Skin Sensitization, Category 1</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>Flammable Liquids, Category 3</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>Skin Corrosion/Irritation, Category 2</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>Skin Sensitization, Category 1</td> </tr> <tr> <td>(R)-p-mentha-1,8-diene</td> <td>Aquatic Hazard (Long Term), Category 1</td> </tr> </tbody> </table>	Name	Classification	Permethrin (ISO)	Acute Toxicity (Oral), Category 4	Permethrin (ISO)	Acute Toxicity (Inhalation), Category 4	Permethrin (ISO)	Skin Sensitization, Category 1	(R)-p-mentha-1,8-diene	Flammable Liquids, Category 3	(R)-p-mentha-1,8-diene	Skin Corrosion/Irritation, Category 2	(R)-p-mentha-1,8-diene	Skin Sensitization, Category 1	(R)-p-mentha-1,8-diene	Aquatic Hazard (Long Term), Category 1
Name	Classification																
Permethrin (ISO)	Acute Toxicity (Oral), Category 4																
Permethrin (ISO)	Acute Toxicity (Inhalation), Category 4																
Permethrin (ISO)	Skin Sensitization, Category 1																
(R)-p-mentha-1,8-diene	Flammable Liquids, Category 3																
(R)-p-mentha-1,8-diene	Skin Corrosion/Irritation, Category 2																
(R)-p-mentha-1,8-diene	Skin Sensitization, Category 1																
(R)-p-mentha-1,8-diene	Aquatic Hazard (Long Term), Category 1																
<u>SARA 313</u>	<table border="1"> <thead> <tr> <th></th> <th>Product Name</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td><b>Form R – Reporting requirements</b></td> <td>Permethrin (ISO)</td> <td>2645-53-1</td> </tr> <tr> <td><b>Supplier notification</b></td> <td>Permethrin (ISO)</td> <td>2645-53-1</td> </tr> </tbody> </table> <p>SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.</p>		Product Name	CAS number	<b>Form R – Reporting requirements</b>	Permethrin (ISO)	2645-53-1	<b>Supplier notification</b>	Permethrin (ISO)	2645-53-1							
	Product Name	CAS number															
<b>Form R – Reporting requirements</b>	Permethrin (ISO)	2645-53-1															
<b>Supplier notification</b>	Permethrin (ISO)	2645-53-1															
<b>State Regulations</b>																	
Massachusetts:	The following components are listed: Permethrin (ISO)																



# MATERIAL SAFETY DATA SHEET

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

<b>Sentry Flea, Tick &amp; Mosquito</b>
<b>Squeez-On for Dogs (up to 15 kg)</b>
70025

Page 13 of 13

New York:	The following components are listed: Permethrin (ISO)
New Jersey:	The following components are listed: Permethrin (ISO)
Pennsylvania	None of the components are listed.
Massachusetts:	The following components are listed: Permethrin (ISO)
<b>California Prop. 65</b>	No products were found.

<b>Section XVI. Other information</b>	
<b>Procedure used to derive the classification</b>	
<b>Classification</b>	<b>Justification</b>
Flammable Liquids – Category 3	On basis of test data
Acute Toxicity (oral) – Category 4	Calculation method
Acute Toxicity (inhalation) – Category 4	Calculation method
Skin Corrosion/ Irritation – Category 2	Calculation method
Skin Sensitization – Category 1	Calculation method
Aquatic Hazard (Acute) – Category 2	Calculation method
Aquatic Hazard (Long term) – Category 1	Calculation method
<b>Key to abbreviations</b>	
ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations	
Notice to reader: 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: April 30, 2020
--	---------------------------