Last Updated: September 9, 2016

1. IDENTIFICATION

Product name: Novacide Flea & Tick Killer

Product type: IGR

EPA Registration No.: 53883-304-88746

Chemical name of active ingredient(s): **Pyriproxyfen:** 2-[1-methyl-2-(4-phenoxyphenoxy)

ethoxy]pyridine

Pyrethrins: Pyrethrum extract

Permethrin: [3-(Phenoxyphenyl)methyl(±)cis-trans 3-(2,2 dichloroethenyl) 2,2-dimethylcyclopropanecarboxylate] **n**-

Octyl bicycloheptene dicarboximide

Manufacturer/Registrant: Solutions Pest & Lawn

2739 Pasadena Blvd Pasadena, TX 77502

For fire, spill, and/or leak emergencies,

contact Chemtrec: Phone: 1-800-424-9300

For medical emergencies and health and safety inquiries, contact Safety

Phone: 1-866-897-8050

Call:

Poison Control Center Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

Exposure Route	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	NC	NC	4	2B	2	NC

NC: Not classified

SIGNAL WORD: WARNING **HAZARD STATEMENTS:**

- Flammable liquid (Flammability Category 4)
- Harmful if contact with skin
- Harmful if inhaled
- Cause eye irritation
- Suspected of causing cancer (Carcinogenicity- Category 2)

PICTOGRAM:







PRECAUTIONARY STATEMENTS:

- Keep away from heat and open flames, no smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof ventilating equipment. Use only non-sparking tools.

Last Updated: September 9, 2016

Take precautionary measures against static discharge. Wear protective gloves, eye and face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water. In case of fire: Use water fog, CO₂, foam or dry chemical to extinguish.

- Wear protective gloves and clothing. If on skin, wash with plenty of water. Call a poison center if you feel unwell. Take off contaminated clothing and was it before reuse.
- Avoid breathing mist, vapors and spray. Use only outdoors or in a well-ventilated area. If inhaled: remove a person to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.
- Wash hands thoroughly after handling. 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.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Contact Safety Call[®] International for emergency medical treatment at (866) 897-8050.

PHYSICAL OR CHEMICAL HAZARDS: Extremely Flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12 for hazards not otherwise classified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA	ACGIH	OTUED	NTP/IARC/OSHA
			PEL	TLV	OTHER	(Carcinogen)
Pyriproxyfen	95737-68-1	0.1	NE	NE	NE	NA
Pyrethrins	8003-34-7	0.05	5mg/m ³	5mg/m ³	5mg/m ³	NA
			(TWA)	(TWA)	(RELTWA)*	
n-Octyl	113-48-4	0.4	NE	NE	NE	NA
bicycloheptene						
dicarboximide						
Permethrin	52645-53-1	0.4	NE	NA	NE	IARC – 3**
Hydrotreated light,	64742-47-8	< 10	NE	200	NE	NA
Distillates				mg/m³		
(petroleum),				(TWA)***		
Hydrocarbon	Proprietary		NE	NE	NE	NA
propellant mixture						

NE= Not established; NA= Not applicable *

NIOSH exposure limits.

^{**}IARC Group 3: The agent (mixture or exposure circumstance) is unclassifiable as to carcinogenicity to humans.

^{***} Non-aerosol; total hydrocarbon vapor. Can be absorbed through the skin as total hydrocarbon vapor.

Last Updated: September 9, 2016

4. FIRST AID MEASURES

FIRST AID					
IF ON SKIN OR	Take off contaminated clothing.				
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.				
	Call a poison control center or doctor for treatment advice.				
IF SWALLOWED:	Immediately call a poison control center or doctor.				
	Do not induce vomiting unless told to do so by the poison control center or physician.				
	Do not give any liquid to the person.				
	Do not give anything by mouth to an unconscious person.				
IF IN EYES:	Hold eye open and rinse slowly and gently with water 15-20 minutes.				
	• Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye.				
	Call a poison control center or doctor for treatment advice.				
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 physician or poison control center for further treatment advice.				

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this product (including health concerns, medical emergencies or pesticide incidents), you may call SafetyCall® International at 1-866-897-8050, twenty-four (24) hours per day, seven (7) days per week.

5. FIRE FIGHTING MEASURES

FLASH POINT: 172°F (< 20°F for the propellant)

FLAMMABLE LIMITS: Not determined

NFPA 30B Flammability: Level 1 Aerosol

EXTINGUISHING MEDIA: CO₂, foam, and dry chemical.

UNUSUAL FIRE & EXPLOSION HAZARDS: Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. Fire may produce irritating, corrosive or toxic gases.

FIRE-FIGHTING PROCEDURES: Isolate fire area and evacuate downwind. DO NOT breathe gases, smoke or vapors generated. Wear self-contained breathing apparatus and full-protective clothing. Cool fire exposed areas and equipment.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition. Products of combustion include CO, and CO₂.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR LEAK: Keep unauthorized personnel away. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Do not direct water at spill or source of leak. If possible, turn leaking containers so that gas escapes rather than liquid. Prevent entry into waterways, sewers, basements or confined areas. Eliminate all ignition sources and allow to discharge completely in well ventilated area.

7. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage or disposal.

Last Updated: September 9, 2016

PRECAUTIONS TO BE TAKEN IN HANDLING: Extremely Flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Refer to the product label and directions for use. Provide good ventilation of working area. Keep away from sources of ignition – No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment. PRECAUTIONS TO BE TAKEN IN STORAGE: Store in cool, dry (preferably locked) area that is away from heat and open flame, and in a place that is inaccessible to children and animals. Do not contaminate water, food or feed by storage or disposal.

STORAGE TEMPERATURE (MIN/MAX): Store below 130°F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks.

HAND PROTECTION: Chemical-resistant gloves.

EYE PROTECTION: Protective eyewear or chemical safety glasses with side shields or chemical goggles when working in non-ventilated spaces.

RESPIRATOR REQUIREMENTS: None required when used according to label directions. NIOSH approved P class filtering face piece or respirator may be used to minimize inhalation of aerosols.

ADDITIONAL PROTECTIVE MEASURES:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users Should: • Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 3.

ENGINEERING CONTROLS: Use in adequately ventilated areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Liquid

ODOR: Characteristic solvent like

pH: 8-9

FLASH POINT: 172°F(Propellant < 20°F) **DENSITY:** 0.88 – 0.96 g/ml (8.0 lbs/gal)

Last Updated: September 9, 2016

VISCOSITY: Not applicable

SOLUBILITY IN WATER: Not available

MELTING POINT: Not available **SOLUBILITY:**

Not available

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Do not spray into open flame or onto very hot surfaces.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition. Products of combustion include CO, and CO₂. **HAZARDOUS POLYMERIZATION:** Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD₅₀ (Rat): > 5,000 mg/kg Acute Dermal LD₅₀ (Rabbit): > 2,000 mg/kg

Acute Inhalation LC₅₀ (Rat): The LC₅₀ of this material places it in EPA Toxic Category IV.

Eye Irritation: Moderately or severely irritation.

Skin Irritation: Moderately irritating. Prolonged contact with the product may cause skin irritation and

reddening.

Dermal Sensitization: Skin sensitizing effects were not observed in animal studies.

ROUTES OF EXPOSURE: Skin, inhalation, ingestion.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Cause moderately or severely irritating. May cause redness and tearing. **SKIN CONTACT:** Moderately irritating. Prolonged contact with the product may cause skin irritation and reddening.

INGESTION: Harmful is swallowed. **INHALATION:**

Harmful is inhaled.

OTHER TOXICOLOGICAL INFORMATION:

DEVELOPMENTAL/TERATOLOGY TOXICITY:

Pyriproxyfen: No indication of effect observed in animal studies.

Pyrethrum: No indication of effect observed in animal studies.

n-Octyl bicycloheptene dicarboximide: No indication of effect observed in animal studies. Distillates (petroleum), hydrotreated light: No indication of effect observed in animal studies.

REPRODUCTION TOXICITY:

Pyriproxyfen: No effects reported.

Pyrethrum: No effects reported. n-Octyl bicycloheptene

dicarboximide: No effects reported.

MUTAGENICITY:

Pyriproxyfen: No mutagenic effects reported. Pyrethrum: No mutagenic effects reported.

n-Octyl bicycloheptene dicarboximide: Results from a number of mutagenicity studies with microorganisms and mammalian cell culture are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Last Updated: September 9, 2016

Distillates (petroleum), hydrotreated light: The substance was no mutagenic in bacteria. The substance was not genotoxic in mammalian cell culture. The substance was not mutagenic in mammal cell culture. The substance was no genotoxic in a test with mammals.

CARCINOGENICITY:

Pyriproxyfen: In long-term studies in rats and mice in which pyriproxyfen was given by feed, a carcinogenic effect was not observed.

Pyrethrum: Not likely to be carcinogenic to humans. Permethrin: EPA classified permethrin as "Likely to be Carcinogenic to Humans" by the oral route. This classification was based on two reproducible benign tumor types (lung and liver) in the mouse, equivocal evidence of carcinogenicity in Long-Evans rats, and supporting structural activity relationships (SAR) information. (EPA 2009 Permethrin RED)

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates: Do not apply directly to or near water, or to areas where surface water is present or to intertidal areas below the mean water mark. Do not apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. See Directions for Use for additional precautions and requirements. This product 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 actively visiting the treatment area.

ECOTOXICOLOGICAL INFORMATION:

Pyriproxyfen technical data:

Rainbow trout LC₅₀ (96-h): > 0.325 mg/l

Pyrethrum technical data:

Rainbow trout LC₅₀ (96-h): > 0.0051 mg/l Daphnia magna EC₅₀ (48-h): 0.016 mg/l n-Octyl bicycloheptene dicarboximide Rainbow trout LC₅₀ (96-h): > 1.4 mg/l Daphnia magna LC₅₀ (48-h): 2.3 mg/l

Permethrin technical data:

Rainbow trout LC₅₀ (96-h): $0.006 - 0.028 \mu g/L$

Zebrafish LC₅₀ (96-h): 0.022 mg/l Daphnia magna LC₅₀ (24-h): 0.024 mg/l

Distillates (petroleum), hydrotreated light data: Zebrsfish

LC₅₀ (96-h): 7.3 mg/l

Daphnia magna EC₅₀ (84-h): 1.4 – 21 mg/l Algae

EC₅₀ (72-h): 3.7 - 8.3 mg/l

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Do not cut, puncture, crush, or incinerate empty aerosol containers. Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

Last Updated: September 9, 2016

14. TRANSPORT INFORMATION

DOT CLASSIFICATION: Consumer Commodity, ORM-D **INTERNATIONAL TRANSPORTAION:** Limited Quantity

IMO (vessel): UN 1950, Aerosols,

IATA (air): UN1950, Aerosols, Flammable

15. REGULATORY INFORMATION

FIFRA INFORMATION:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of nonpesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

Harmful if swallowed, inhaled, or absorbed through the skin. Do not breathe vapor or spray mist. Avoid contact with shin, eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Highly flammable ingredient.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delay)

Fire hazard

Release of pressure (puncture) hazard

Section 313: Permethrin (CAS #:52645-53-1)

CERCLA RQ: Pyrethrins: 1 lbs.

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

CA PROPOSITION 65: Not applicable

STATE Right-To-Know:

Pyrethrins (CAS No. 8003-34-7): MA, NJ, PA Permethrin (CAS No. 52645-53-1): MA

Distillates (petroleum), hydrotreated light (CAS No. 64742-47-8): MA, NJ, PA

16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS		
HEALTH:	2	2	0	MINIMAL
FLAMMABILITY:	2	2	1	SLIGHT
REACTIVITY:	1	1	2	MODERATE
			3	HIGH
			4	SEVERE

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.