ENFORCER
Zep Commercial Sales & Service
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Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name Enforcer Flea & Tick Spray for Dogs & Cats

Product code EFT16

Date of issue 07/12/13 **Supersedes** 02/27/13

This product is a registered pesticide. EPA Registration Number:1021-1704-40849

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 404-352-1680

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

2	4	0

CAUTION

CAUSES EYE IRRITATION. HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Eye contact. Inhalation.

Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin May cause skin irritation. Harmful if absorbed through the skin. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation May cause respiratory irritation. Exposure can cause coughing, chest pains and difficulty in breathing.

Ingestion Harmful if swallowed. Exposure can cause stomach pains, vomiting and diarrhea.

Chronic effects Contains material which may cause damage to the following organs: blood, kidneys, liver, spleen, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity No known significant effects or critical hazards.

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Not available.						

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
Isopropyl alcohol	67-63-0	>90
Distillates (petroleum), hydrotreated light	64742-47-8	<3
N-octyl bicycloheptene dicarboximide; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2, 3-dicarboximide	113-48-4	1

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Closed cup: 16.111°C (61°F) [Tagliabue.]

Flammable Limits Lower: 2%
Upper: 12%

Flammability Flammable liquid and vapor.

Fire hazard Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Fire-Fighting Procedures Use dry chemical, CO_2, water spray (fog) or foam. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

Spill Clean up Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Dilute with water and mop up if water-soluble. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Handling Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wash contaminated clothing before reusing. Do not apply directly to water or wetlands. Do not apply where run-off is likely to occur. Do not empty into drains; dispose of this material and its container in a safe way. Observe label precautions.

Storage Store in a dry, cool and well-ventilated area. Avoid all possible sources of ignition (spark or flame). Keep only in original container. Do not reuse container. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
Isopropyl alcohol	**ACGIH TLV (United States, 3/2012).** TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 400 ppm 8 hours. TWA: 980 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m³ 15 minutes. **NIOSH REL (United States, 1/2013).** TWA: 400 ppm 10 hours. TWA: 980 mg/m³ 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 400 ppm 8 hours. TWA: 980 mg/m³ 8 hours.
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 3/2012). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Body Neoprene, Nitrile or Rubber gloves.

Respiratory A respirator is not needed under normal and intended conditions of product use.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Clear.]

pH Not applicable.

Boiling Point 80 to 85°C (176 to 185°F)

Specific Gravity 0.788

Solubility Easily soluble in the following materials: cold water and hot water.

Color Yellow.

Odor Alcohol-like. [Strong]

Vapor Pressure Not available.

Vapor Density >1 [Air = 1]

Evaporation Rate >1 (butyl acetate = 1)

VOC (Consumer) 98.1 % (w/w) 6.45 lbs/gal (773.3 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

Isopropyl alcohol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Distillates (petroleum), hydrotreated light	LC50 Inhalation Vapor	Rat	>6.8 mg/l	4 hours
	LD50 Dermal	Rabbit	2000 to 4000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
N-octyl bicycloheptene dicarboximide; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide	LD50 Dermal	Rabbit	470 mg/kg	-
	LD50 Dermal	Rat	470 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-

Section 12. Ecological Information

Aquatic Ecotoxicity

Isopropyl alcohol	-	Acute LC50 1400000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 1400000 µg/l	Fish - Western mosquitofish - Gambusia affinis	96 hours
Distillates (petroleum), hydrotreated light	-	Acute LC50 2200 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	4 days
N-octyl bicycloheptene dicarboximide; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide	-	Acute EC50 2.3 ppm Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 1.4 ppm Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	96 hours

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D001
Classification: Ignitable hazardous waste.
Origin: RCRA waste.
Do not empty into drains; dispose of this material and its container in a safe way.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	-	Consumer commodity or Limited quantity	-	-	
TDG Classification	UN1993	Flammable liquid, n.o.s. (Isopropanol; Isopropyl alcohol; propan-2-ol) Limited quantity	3	II	
IMDG Class	UN1993	Flammable liquid, n.o.s. (Isopropanol). Marine pollutant (Pyrethrins and Pyrethroids) Limited quantity	3	II	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

Product name

propan-2-ol

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65

None of the components are listed.

Canada

WHMIS (Canada)

Class B-2: Flammable liquid
Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*