

1. IDENTIFICATION

Trade Name: Fipronil Flea and Tick Spray for Dogs & Cats
Product identifier: see EPA registration number
Synonym: JK3, JK4
Brand Names: Sentry, Sergeant's, PetArmor
EPA Registration #: 87093-1-2517

Manufacturer: The Perrigo Company
 515 Eastern Avenue
 Allegan, MI 49010 USA
 Tel: 269-673-8451
 Email SDSRequest@Perrigo.com

Manufacturing Site: Sergeant's Pet Care Products, Inc.
 10077 South 134th Street
 Omaha, NE 68138 USA

Emergency phone numbers

First aid or Spill: 888-464-2986 (U.S. calls)
 +1 760-476-3962 Code 333304 (International calls)
 Pet emergency/
 Adverse event report: 1-800-781-4738

Recommended use: Flea and tick treatment for dogs and cats
Restrictions on use: Use only as directed.

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Flammable Aerosol Category 1 Gas Under Pressure: Compressed Gas	Eye Irritation Category 2A Carcinogen Category 2 Specific Target Organ Toxicity Category 3 (narcotic effects)

Label Elements:
Danger!



Hazard statement(s)

Extremely Flammable aerosol
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.
 Suspected of causing cancer.
 May cause drowsiness or dizziness.

Precautionary statement(s)

Avoid breathing vapors or mists.
 Use only outdoors or in a well-ventilated area.
 Wash hands thoroughly after handling.
 Wear eye protection.
 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.

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.

IF inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.
IF exposed or concerned: Get medical advice.
In case of fire: Use water spray, carbon dioxide or alcohol-resistant foam to extinguish.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.
Store locked up.
Dispose in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Fipronil	120068-37-3	0.29%
Diethylene Glycol Monoethyl Ether (DEGEE)	111-90-0	5-10%
Isopropanol	67-63-0	Proprietary
Butylated Hydroxyanisole	25013-16-5	<0.5%
Air (Propellant)	Mixture	Proprietary
Non-Hazardous and other ingredients below the disclosure limits	Mixture	Balance

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation: Remove person to fresh air. If irritation occurs or symptoms develop, get medical attention.

Skin contact: Wash hands with soap and water after handling. If irritation develops and persists or symptoms of exposure develop, get medical attention.

Eye contact: Immediately flush eyes with water for 15 minutes while lifting the upper and lower lids. Get medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention.

Most important symptoms/effects, acute and delayed: Causes eye irritation. May cause skin and respiratory irritation. Inhalation of vapors may cause respiratory irritation and dizziness and drowsiness.

Ingestion, skin absorption or inhalation may cause sweating, nausea, vomiting, headache, abdominal pain, dizziness, agitation, weakness, and tonic-clonic seizures. Contains butylated hydroxyanisole which is suspected to cause cancer.

Indication of immediate medical attention and special treatment, if necessary: Medical attention is recommended for ingestion.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Use water spray or fog, CO₂, dry chemical or alcohol-resistant foam.

Specific hazards arising from the chemical: Extremely flammable aerosol. Pressurized container may explode if heated. Vapors are heavier than air and can flow to remote ignition sources and flash back. Vapors may be explosive in confined areas. Vapors will collect in low areas. Vapors may be ignited by static sparks. Flames may be invisible in daylight.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water. Use shielding to protect from bursting cans.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing and equipment as described in Section 8. Eliminate all ignition sources and ventilate the area with explosion-proof equipment.

Environmental Precautions: This product is very toxic to aquatic life. Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and materials for containment and cleaning up: Move leaking container to a well-ventilated area if safe to do so. Absorb released liquid with an inert material. Collect into a suitable container for disposal. Clean area thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke when handling this material. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove contaminated clothing and launder before re-use. Keep product away from heat, sparks and flames. Do not smoke while using. Do not leave the can in direct sunlight. Do not puncture or incinerate container, even when empty.

Conditions for safe storage, including any incompatibilities: Store as indicated on product packaging. Do not expose to temperatures above 120°F / 50°C. Protect containers from physical damage. Store in a cool area. Keep away from excessive heat and open flames. Store out of direct sunlight. Store away from oxidizers. Level 3 Aerosol (NFPA 30B).

PESTICIDE STORAGE: Store in original container. Keep away from fire, sparks and heated surfaces. Store in a cool, dry place inaccessible to children and pets..

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Fipronil	Perrigo OEB4 (1 ug/m3) TWA
Diethylene Glycol Monoethyl Ether	25 ppm TWA AIHA WEEL
Isopropanol	400 ppm TWA OSHA PEL 200 ppm TWA, 400 ppm STEL ACGIH TLV
Butylated Hydroxyanisole	None Established

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to minimize exposures levels. Use explosion-proof equipment where required.

Individual protection measures:

Respiratory protection: None needed under normal use conditions. If exposure limits are exceeded, a NIOSH approved organic vapor/pesticide respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: Rubber gloves are required for product application.

Eye protection: Chemical safety goggles recommended for bulk processing and if eye contact is possible.

Other: None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Clear, colorless liquid

Odor: Alcohol

Odor threshold: 200 ppm (isopropanol)	pH: 6.3
Melting point/freezing point: Not determined	Boiling Point: 179.6 °F (82 °C) (isopropanol)
Flash point: 11.7°C / 53°F	Evaporation rate: Not determined
Flammability (solid, gas): Not applicable	VOC: 95%
Flammable limits: LEL: 1.2% (DEGEE)	UEL: 23.5% (DEGEE)
Vapor pressure: 45.4 mmHg @ 25°C (isopropanol)	Vapor density: >1 (air=1)
Relative density: 0.78-0.821	Solubility(ies): Soluble in water
Partition coefficient: n-octanol/water: Not available	Auto-ignition temperature: Not available
Decomposition temperature: Not available	Viscosity: Not available

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable.

Possibility of hazardous reactions: Reaction with strong oxidizers will generate heat and cause fire.

Conditions to avoid: Avoid heat, sparks, flames, and all other sources of ignition. Pressurized container – protect from sunlight and heat.

Incompatible materials: Avoid oxidizing agents, acids and bases.

Hazardous decomposition products: Thermal decomposition may yield carbon and sulfur oxides and chlorine and fluoride compounds.

11. TOXICOLOGICAL INFORMATION

Acute effects of exposure:

Inhalation: Inhalation of vapors may cause irritation of the mucous membranes and upper respiratory tract and central nervous system effects such as dizziness, drowsiness and headache and effects similar to ingestion.

Ingestion: Swallowing may cause may cause drowsiness, dizziness, sweating, nausea, vomiting, headache, abdominal pain, dizziness, agitation, weakness, and tonic-clonic seizures.

Skin contact: May cause irritation and effects similar to ingestion. Fipronil is absorbed through the skin.

Eye contact: Contact may cause irritation with redness, pain and tearing.

Chronic Effects: Prolonged or repeated exposure may cause neurotoxicity and effects on the thyroid and liver.

Sensitization: Components are not skin sensitizers. Fipronil was not sensitizing when tested in guinea pigs.

Germ Cell Mutagenicity: Components are not germ cell mutagens. Fipronil was not genotoxic either in vitro or in vivo assays conducted to investigate gene mutations, DNA damage, and chromosomal aberrations. It was negative in Salmonella (Ames test), Chinese hamster V79 cells (HGPRT Assay), human lymphocytes (in vitro cytogenetics assay), or mouse micronuclei (bone marrow micronucleus assay).

Reproductive Toxicity: Ingredients are not reproductive toxins. The developmental toxicity NOELs in the rat and rabbit were 20 mg/kg/day (highest dose tested; HDT) and 1 mg/kg/day (HDT), respectively. Maternal toxicity was observed in the rat at the HDT as evidenced by decreased body weight gain and food efficiency. In the rabbit, the maternal toxicity NOAEL was less than 0.1 mg/kg/day, based on reduced body weight gain and food efficiency at all dose levels tested.

Carcinogenicity: Butylated hydroxyanisole is classified by IARC as a group 2B carcinogen and by NTP as reasonably anticipated to be a carcinogen. None of the other components are listed as carcinogens or suspected carcinogens by IARC, NTP, ACGIH or OSHA. Fipronil cause only species-specific tumours in studies with rats and mice.

Acute Toxicity Values: Acute toxicity estimate (ATE) calculated: Oral >5000 mg/kg; Dermal >2000 mg/kg;
Inhalation: >20 mg/L/4 hr
Fipronil: LD50 oral rat 97 mg/kg; LD50 dermal rabbit 354 mg/kg; LC50 rat 0.39-0.682 mg/L/4 hr
Diethylene Glycol Monoethyl Ether: LD50 oral rat 6031 mg/kg; LD50 dermal rabbit 9143 mg/kg
Isopropanol: LD50 oral rat 5045 mg/kg; LD50 dermal rabbit 12,800 mg/kg.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic life with long lasting effects. Avoid release to the environment.

Ecotoxicity values: Isopropanol: LC50 fathead minnows (*Pimephales promelas*), 230 mg/L/96 hr; EC50 water flea (*Daphnia magna*), immobilization: 7,550-13,299 mg/L/48 hr; EC50 alga *Scenedesmus* sp., Growth rate inhibition: >1,000 mg / 72 hr

Fipronil: LC50 leptomis macrochirus 0.085 mg/L/96 hr; NOEC *Cyprinodon Variegatus* 0.0029 mg/L/35 d. EC50 *Chironomus dilutus* 0.0000325 mg/L/96 hr. NOEC *Mysidopsis bahia* 0.0000077 mg/L/28 d.

Classified as Acute Aquatic Toxicity Category 1 (M=1000), Chronic Aquatic Toxicity Category 1 (M=10000)

Persistence and degradability: Fipronil is not readily biodegradable (47% in 28 days OECD 301B).

Isopropanol is readily biodegradable.

Bioaccumulative potential: BCF value for leptomis macrochirus of approx 321 suggests bioconcentration of fipronil in aquatic organisms is low. Isopropanol does not bioaccumulate.

Mobility in soil: No data is available.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. **PESTICIDE DISPOSAL AND CONTAINER HANDLING:** Do not puncture or incinerate! Non-refillable container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1950	Aerosols	2.1	N/A	No
TDG	UN1950	Aerosols	2.1	N/A	No
IMDG	UN1950	Aerosols	2.1	N/A	Marine Pollutant
IATA	UN1950	Aerosols	2.1	N/A	Yes

Note: This product is classified as a Marine Pollutant (Environmentally Hazardous Substance) in accordance with the IMDG Code and the UN Model Regulations. However, it is packaged in either single packages or inner packagings in combination packages containing net quantities of less than 5 kg/5 L (IMDG Code 2.10.2.7; ICAO Special Instruction A197), therefore the Marine Pollutant provisions do not apply.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

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.

FIFRA Labeling:

HAZARDS TO HUMANS. CAUTION. Harmful if absorbed through skin, if swallowed or if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Persons applying this product must wear rubber gloves. **KEEP OUT OF REACH OF CHILDREN.**

Safety, health, and environmental regulations specific for the product in question.

CERCLA: This product is not subject to release reporting. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health, Fire Hazard, Pressure Hazard

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313:
Diethylene glycol monoethyl ether (glycol ether) 5-10%

EPA TSCA Inventory: This product is a pesticide and not subject to TSCA.

CANADA:

Canadian CEPA: This product is a pest control product and not subject to CEPA regulations.

16. OTHER INFORMATION

NFPA Rating: Health = 2 Flammability = 3 Instability = 0
HMIS Rating: Health = 2* Flammability = 3 Physical Hazard = 0

SDS Revision History: New SDS

Date of Preparation: July 9, 2016

Disclaimer: This SDS has been prepared for occupational exposure. Consumers: Refer to the package insert or product label for appropriate consumer-specific information about this product when used according to manufacturer's directions. Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequence of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).