

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Zodiac FleaTrol Flea & Tick Spray for Dogs, Cats, Puppies & Kittens
 Synonyms : 62200B, EPA Reg. No.: 2724-404, Zoecon RF-322 Ovicidal Pump Spray

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.
 Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not use or store near heat or open flame.

1.3. Supplier

Wellmark International
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.zodiacpet.com

1.4. Emergency telephone number

Emergency number : 1-800-950-4783
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation Category 2B	Causes eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Reproductive toxicity Category 1B	May damage fertility or the unborn child
Specific target organ toxicity (single exposure) Category 3	May cause drowsiness or dizziness
Flammable liquids Category 3	Flammable liquid and vapor

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :


 GHS02


 GHS07


 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Flammable liquid and vapor
 May cause an allergic skin reaction
 Causes eye irritation
 May cause drowsiness or dizziness
 May damage fertility or the unborn child

Precautionary statements (GHS-US) : Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Wash hands, forearms and face thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

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water/shower

If inhaled: Remove person to fresh air and keep comfortable for breathing

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use alcohol resistant foam, carbon dioxide (CO₂), Water fog, dry extinguishing powder to extinguish.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to in accordance with local/regional/national/international regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Pyrethrins	(CAS-No.) 8003-34-7	0.2
Piperonyl butoxide	(CAS-No.) 51-03-6	0.46
N-Octyl Bicycloheptene Dicarboximide	(CAS-No.) 113-48-4	0.62
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	0.27
2-Propanol, 1-methoxy	(CAS-No.) 107-98-2	81.2 - 82
1-Propanol, 2-methoxy-	(CAS-No.) 1589-47-5	< 0.41
Other ingredients	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : May cause an allergic reaction in individuals with a sensitivity to n-octyl bicycloheptene dicarboximide and/or piperonyl butoxide.

Symptoms/effects after eye contact : Mild eye irritation.

Chronic symptoms : May damage fertility or the unborn child.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Alcohol-resistant foam. Carbon dioxide.

Unsuitable extinguishing media : Avoid heavy hose streams.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapor.
- Explosion hazard : Flammable liquid. Containers may explode when heated.
Liquid will float and may re-ignite on surface of water.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective equipment.
- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
- Emergency procedures : Do not touch spilled material. Do NOT wash away into sewer. Avoid release to the environment. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate unnecessary personnel. Use grounded electrical/mechanical equipment. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. All equipment used when handling the product must be grounded.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep from freezing.
- Incompatible materials : Heat, sparks, open flame. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pyrethrins (8003-34-7)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
IDLH	US IDLH (mg/m ³)	5000 mg/m ³

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Pyrethrins (8003-34-7)		
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³

2-Propanol, 1-methoxy (107-98-2)		
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	ACGIH STEL (ppm)	100 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	360 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	540 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm

8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Chemical goggles or face shield

Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Respiratory protection:

Not required with normal use. In case of insufficient ventilation, wear suitable respiratory equipment. However, mixers, loaders, applicators and other handlers must wear respiratory protection with P or R filters.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Pale yellow transparent liquid
Color	: Pale yellow
Odor	: Characteristic of alcohol
Odor threshold	: No data available
pH	: 5.5 - 7.5
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 41 °C (105.8 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.88 g/ml (7.3 lb.gal)
Solubility	: No data available

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Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 100 cP
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Excessive heat > 110° F. Keep away from fire. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Zodiac FleaTrol Flea & Tick Spray for Dogs, Cats, Puppies & Kittens	
LD50 oral rat	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg
pH	5.5 - 7.5

GHS-US Properties	Classification
Acute toxicity	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cells mutagen	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicant (single exposure)	May cause drowsiness or dizziness.
Specific target organ toxicant (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : May cause drowsiness and dizziness.

Skin

Acute : May cause an allergic reaction in individuals with a sensitivity to n-octyl bicycloheptene dicarboximide and/or piperonyl butoxide.

Eye

Acute : May cause mild irritation.

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Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity

: (s)-Methoprene has been tested and found negative for mutagenicity potential, N-octyl bicycloheptene dicarboximide was concluded to be negative in the CHO chromosome aberration assay, Piperonyl butoxide was not mutagenic in a battery of tests, Pyrethrins were not found to be genotoxic and did not damage DNA in any study conducted which included: Ames assay, chromosome aberration in Chinese hamster ovaries (CHO) cells and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

Carcinogenicity

: No component in this product present at 0.1% or greater is listed by IARC, OSHA or NTP.

Reproductive Effects

: (s)-Methoprene is not a reproductive toxin and does not cause birth defects, N-octyl bicycloheptene dicarboximide has been tested and is not a reproductive toxin, Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits, Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits, 2-methoxy-1-propanol has been shown to produce developmental toxicity in animals.

SECTION 12: Ecological information

12.1. Toxicity

Pyrethrins (8003-34-7)	
LC50 Acute fish 1	0.0051 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.016 mg/l (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.0014 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0116 (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.0019 mg/l (Fathead minnow)
NOEC Chronic fish 2	0.0059 mg/l (Sheepshead minnow - Estimated)
NOEC Chronic crustacea 1	0.00086 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.0001 ml/l (Mysid shrimp - Estimated)
Piperonyl butoxide (51-03-6)	
LC50 Acute fish 1	1.9 mg/l (Exposure time: na - Rainbow trout)
LC50 Acute fish 2	3.94 mg/l (Exposure time: na - Sheepshead minnow)
LC50 Acute crustacea 1	0.49 mg/l (Exposure time: na - Mysid shrimp)
LC50 Acute crustacea 2	0.51 mg/l (Exposure time: na - Gammarus fasciatus (amphipod))
NOEC Chronic fish 1	0.04 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.03 mg/l (Daphnia magna)
N-Octyl Bicycloheptene Dicarboximide (113-48-4)	
LC50 Acute fish 1	1.4 - 2.4 mg/l
LC50 Acute crustacea 1	2.3 mg/l (Exposure time: 48h - Daphnia magna)
(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

Pyrethrins (8003-34-7)	
Persistence and degradability	Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.
(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

2-Propanol, 1-methoxy (107-98-2)	
BCF fish 1	< 2

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2-Propanol, 1-methoxy (107-98-2)

Log Pow	-0.437
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12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)

Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3092	Packaging 500 lbs. or greater: 1-Methoxy-2-propanol solution	3	III	RQ Pyrethrins = 1 lb.
IMDG	UN3092	1-Methoxy-2-propanol solution	3	III	Marine pollutant
IATA	UN3092	1-Methoxy-2-propanol solution	3	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

Pyrethrins (8003-34-7)

CERCLA RQ	1 lb listed under Pyrethrins
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Piperonyl butoxide (51-03-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	1 %
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2-Propanol, 1-methoxy (107-98-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

1-Propanol, 2-methoxy- (1589-47-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

FIFRA Labelling

EPA Registration Number	2724-404
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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 Signal word	Caution
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FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.
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FIFRA Hazards to Humans and Domestic Animals	<p>HAZARDS TO HUMANS-CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. May cause dermal sensitization (skin allergy).</p> <p>HAZARDS TO ANIMALS -CAUTION: Consult a veterinarian before using this product on debilitated, aged, pregnant, nursing, or animals on medication. Sensitivities may occur after using ANY pesticide product for pets. If signs of sensitivity occur, bathe your pet with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately. Some cats may be sensitive to products containing pyrethrins. Excessive salivation and ear and paw flicking may occur; however, these effects are temporary and not harmful. May cause dermal sensitization (skin allergy).</p>
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FIFRA First Aid	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. IF SWALLOWED: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
FIFRA Physical Hazard	Combustible, Do not use or store near heat or open flame

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 17 March 2016
Revision date : 21 November 2017

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.