# SECTION 1: Identification

## 1.1. Identification
- **Product form**: Mixture
- **Trade name**: Zodiac Flea & Tick Collar for Dogs & Puppies
- **Synonyms**: EPA Reg. No.: 89459-92, RF 2253 Collar-D, 100530909

## 1.2. Recommended use and restrictions on use
- **Recommended use**: Flea and tick collar for dogs and puppies.
- **Restrictions on use**: Avoid contact with skin and eyes. Keep out of reach of children.

## 1.3. Supplier
Central Garden & Pet Company  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
www.central.com

## 1.4. Emergency telephone number
- **Emergency number**: 1-800-234-2269  
  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**
  - Acute toxicity (oral) Category 4: Harmful if swallowed
  - Carcinogenicity Category 2: Suspected of causing cancer

## 2.2. GHS Label elements, including precautionary statements
- **GHS-US labeling**
  - Hazard pictograms (GHS-US): ![GHS07](image) ![GHS08](image)
  - Signal word (GHS-US): Warning
  - Hazard statements (GHS-US): Harmful if swallowed  
    Suspected of causing cancer
  - Precautionary statements (GHS-US): Obtain special instructions before use.  
    Do not handle until all safety precautions have been read and understood.  
    Wash hands, forearms and face thoroughly after handling.  
    Do not eat, drink or smoke when using this product.  
    Wear protective gloves/protective clothing/eye protection/face protection.  
    If swallowed: Call a poison center or doctor if you feel unwell  
    If exposed or concerned: Get medical advice/attention.  
    Rinse mouth.  
    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**: Exposure to titanium dioxide from the finished product is not expected to occur due to the manner in which the constituents are bound. Finished product is not considered carcinogenic.

Zodiac Flea & Tick Collar for Dogs & Puppies
Safety Data Sheet

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deltamethrin</td>
<td>(CAS-No.) 52918-63-5</td>
<td>4</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>(CAS-No.) 13463-67-7</td>
<td>0.6</td>
</tr>
<tr>
<td>Phosphoric acid, triphenyl ester</td>
<td>(CAS-No.) 115-86-6</td>
<td>25.75</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>(CAS-No.) N/A</td>
<td>Balance</td>
</tr>
</tbody>
</table>

SECTION 4: First-aid measures

4.1. Description of first aid measures

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. 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. Call a poison center/doctor/physician if you feel unwell. Do NOT induce vomiting unless directed to do so by medical personnel.

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

Symptoms/effects after ingestion: Harmful if swallowed.

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: Use extinguishing agent suitable for surrounding fire.

Unsuitable extinguishing media: Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

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

Emergency procedures: No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.

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: No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Shovel or sweep up and put in a closed container for disposal. Use appropriate PPE.
Zodiac Flea & Tick Collar for Dogs & Puppies
Safety Data Sheet

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling:
Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.

Hygiene measures:
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

Storage conditions:
Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (13463-67-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td>15 mg/m³ (total dust)</td>
<td>5000 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid, triphenyl ester (115-86-6)</td>
<td>3 mg/m³ (Triphenyl phosphate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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:
Not required for normal conditions of use

Skin and body protection:
Not required for normal conditions of use

Respiratory protection:
Not required for normal conditions of use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Pale gray plastic collar</td>
</tr>
<tr>
<td>Color</td>
<td>Gray</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless or slight vanilla</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Flash point: Not applicable
Relative evaporation rate (butyl acetate=1): No data available
Flammability (solid, gas): Non flammable.
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: 1.153 g/ml @ 20°C
Solubility: Insoluble
Log Pow: No data available
Auto-ignition temperature: Not applicable
Decomposition temperature: No data available
Viscosity, kinematic: Not applicable
Viscosity, dynamic: No data available
Explosion limits: Not applicable
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
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
May decompose upon heating to produce toxic vapors/gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Deltamethrin (52918-63-5)
- LD50 oral rat: 66.7 mg/kg
- LD50 dermal rabbit: > 2000 mg/kg
- LC50 inhalation rat (mg/l): 2.2 mg/l/4h

Titanium dioxide (13463-67-7)
- IARC group: 2B - Possibly carcinogenic to humans
- In OSHA Hazard Communication Carcinogen list?: Yes

GHS-US Properties | Classification
--- | ---
Acute toxicity | Oral: Harmful if swallowed.
Skin corrosion/irritation | Not classified
Serious eye damage/irritation | Not classified
Respiratory or skin sensitization | Not classified
Germ cells mutagen | Not classified
Carcinogenicity | Suspected of causing cancer.
Reproductive toxicity | Not classified
Specific target organ toxicant (single exposure) | Not classified
### Potential health effects

#### Inhalation

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

#### Skin

**Acute**
May be harmful if absorbed through skin. May cause a transient, localized parasthesia, characterized by tingling, burning or numbness sensation in some individuals.

#### Eye

**Acute**
May cause irritation.

#### Ingestion

**Acute**
Harmful if swallowed.

### Mutagenicity

Deltamethrin has been tested and found negative for mutagenicity potential.

### Carcinogenicity

Exposure to titanium dioxide from the finished product is not expected to occur due to the manner in which the constituents are bound. Finished product not considered carcinogenic. Titanium dioxide is classified as a possible carcinogen Group 2B by IARC, Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

### Reproductive Effects

Deltamethrin does not cause birth defects or adverse effects on reproduction.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th>LC50 Acute fish 3</th>
<th>0.00174 mg/l (Exposure time: 96h - poecilia reticulata)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EC50 Daphnia 1</td>
<td>0.00415 mg/l (Exposure time: 24h - Daphnia magna)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deltamethrin: Hydrolytic Half-Life: 2.28-2.70 days @ pH 9.0 Photolytic Half-Life: 64-86 days (water); 9 days (soil) Soil Half-Life: 14-40 days (cropped plots); 37-69 days (bare ground) in field dissipation studies.</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th>Mobility in soil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The major routes of dissipation are soil binding and soil microbial degradation. Although soil binding is strong, it is not immediate. It appears that spray drift is the only significant route of exposure to aquatic organism. However, deltamethrin’s strong binding capacity to slime, plants, sediment, etc., might rapidly prevent the availability of deltamethrin for bioconcentration in aquatic systems. Additionally, its insolubility in water will be a factor in limiting its bioconcentration as well. Deltamethrin hydrolyzes under alkaline conditions. Leaching studies indicate that Deltamethrin is immobile.</td>
</tr>
</tbody>
</table>

#### 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.

### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>Proper Shipping Name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
</table>
### Zodiac Flea & Tick Collar for Dogs & Puppies
#### Safety Data Sheet

<table>
<thead>
<tr>
<th>DOT</th>
<th>Not regulated</th>
<th>Not regulated</th>
<th>Not regulated</th>
<th>Not regulated</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>UN3077</td>
<td>Packaging 5 kg or greater: Environmentally hazardous substance, solid, n.o.s (Deltamethrin)</td>
<td>9</td>
<td>III</td>
<td>Marine pollutant</td>
</tr>
<tr>
<td>IATA</td>
<td>UN3077</td>
<td>Packaging 5 kg or greater: Environmentally hazardous substance, solid, n.o.s (Deltamethrin)</td>
<td>9</td>
<td>III</td>
<td>Acute aquatic toxicity</td>
</tr>
</tbody>
</table>

#### SECTION 15: Regulatory information

15.1. US Federal regulations

**Titanium dioxide (13463-67-7)**

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

**FIFRA Labelling**

EPA Registration Number 89459-92

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

**FIFRA Precautionary Statement**

Do Not Let Children Play With This Collar

**FIFRA Hazards to Humans and Domestic Animals**

Do not open protective pouch until ready to use. Do not let children play with this collar. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. 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. Do not use on puppies under 12 weeks. Do not use on Cats. Consult a veterinarian before using this product on debilitated, aged, pregnant, medicated, or nursing dogs. Sensitivities may occur after using ANY pesticide products for dogs. If signs of sensitivity occur, remove collar and bathe your dog with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately. This collar is intended for use only as an insecticide generator and is not to be taken internally by man or animals. Applying other pesticides on the dog may not be necessary while the collar is being worn.

**FIFRA First Aid**

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

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. Call a poison control center or doctor for treatment advice.

15.2. US State regulations

No additional information available

#### SECTION 16: Other information

Date of issue: 21 December 2017

SDS US (GHS HazCom 2012) - CGP

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