MATERIAL SAFETY DATA SHEET
ZODIAC TRIPLE ACTION CONDITIONING FLEA & TICK SHAMPOO FOR DOGS, CATS, & HORSES

Manufacturer: Wellmark International
Address: 1501 E. Woodfield Rd., Suite 200-West, Schaumburg, IL 60173
Emergency Phone: 1-800-950-4783
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zodiac Triple Action Conditioning Flea & Tick Shampoo for Dogs, Cats & Horses

Chemical Name/Synonym: Pyrethrins; a mixture of Pyrethrin I, Pyrethrin II, Jasmolin I, Jasmolin II, Cinerin I, and Cinerin II, Piperonyl Butoxide; 5-[2-(2-butoxyethoxy) ethoxymethyl]-6-propyl-1,3-benzodioxole, N-octyl bicycloheptane dicarboximide; N-(2-ethylhexyl)-5-norbornene-2,3-dicarboximide, Di-n-propyl isocinchomeronate; di-n-propyl 2,5pyridinedicarboxylate

Chemical Family: Pyrethroid, Benzodioxole, Dicarboximide, Ester of Pyridinedicarboxylic acid

Formula: C21 H28 O3, C22 H28 O5, C21 H30 O3, C22 H30 O5, C20 H28 O3 and C21 H28 O5 respectively, C19 H30 O5, C17 H25 NO2, C13 H17 NO4

EPA Registration No.: 2724-501
RF Number: 9208

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component (chemical, common name)</th>
<th>CAS Number</th>
<th>Weight</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins</td>
<td>8003-34-7</td>
<td>0.15%</td>
<td>5 mg/m3 (OSHA &amp; ACGIH)</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>51-03-6</td>
<td>1.00%</td>
<td></td>
</tr>
<tr>
<td>N-octyl bicycloheptane dicarboximide</td>
<td>113-48-4</td>
<td>0.50%</td>
<td></td>
</tr>
<tr>
<td>Di-n-propylisocinchomeronate</td>
<td>136-45-8</td>
<td>0.50%</td>
<td></td>
</tr>
<tr>
<td>Inert ingredients</td>
<td></td>
<td>97.85%</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT
Warning: Keep out of the reach of children. Causes skin and eye irritation. Do not get in eyes or on skin or clothing. Harmful if swallowed. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Usual signs of overexposure are those associated with allergies, i.e., sneezing, runny nose, stuffiness, watery eyes, in rare cases asthma-like symptoms.
4. FIRST AID MEASURES

Eye:  Hold eye open and flush slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.  Call a poison control center or doctor for treatment advice.

Skin:  Remove contaminated clothing and rinse skin immediately with water for 15 – 20 minutes.  Call a poison control center or doctor for treatment advice.

Ingestion:  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 the poison control center or doctor.  Do not give anything by mouth to an unconscious person.

Inhalation:  Remove to clear air area.

Note to Physician:  Treat symptomatically.  Drink promptly a large quantity of milk, egg, whites, gelatin solution, or if these are not available, drink large quantities of water.  Avoid alcohol.

5. FIRE FIGHTING MEASURES

NFPA Rating:  Health:  1  Fire:  1  Reactivity:  0

Flammability Class:  Combustible liquid
Flash Point:  212F/100C
Explosive Limits (% of Volume):  N/A
Extinguishing Media:  CO2, foam, dry chemical
Special Protective Equipment:  Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire Fighting Procedures:  Normal procedures.  Do not allow fire fighting water to escape into waterways or sewers.

Combustion Products:  None known
Unusual Fire/Explosion Hazards:  None known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken:  Do not allow spill to enter waterways inhabited by aquatic organisms.  Soak up spill with absorbent material and place in container for disposal.

Absorbents:  Clay granules, sawdust, dirt or equivalent.
Incompatibles:  Strong oxidizers, strong acids
7. HANDLING AND STORAGE

Handling: Avoid contact with eyes and skin. Wash thoroughly with soap and water after handling.

Storage: Store in a cool place. Do not contaminate water, food or feed by storage.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Pyrethrins = 5 mg/m3 (OSHA PEL & ACGIH TLV)

Ventilation: Natural ventilation will suffice.

Personal Protective Equipment: If prolonged exposure is anticipated, it is recommended for users and handlers to wear a NIOSH approved organic vapor/pesticide respirator, impervious gloves, goggles and other appropriate clothing to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear green liquid, pleasant odor.

Boiling Point: N/A

Melting Point: Not applicable

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): N/A

Specific Gravity: N/A

Bulk Density: Not applicable

Solubility: Miscible in water

Evaporation Rate: N/A

pH: 7.5

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Nonreactive

Incompatibility w/ Other Materials: Strong oxidizers, strong acids

Decomposition Products: None known

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Specific to Active Ingredient(s)]
In a 2-year feeding study, rats were fed pyrethrum at dietary levels of 10, 50 and 250 mg/kg/day. The highest level had no significant effect on growth or survival. Slight though definite liver damage was observed, especially at higher dosage levels. In a 90-day feeding study, dogs that were fed pyrethrins at a dietary level of 5,000 ppm showed tremors, ataxia, labored respiration and salivation during the first month of exposure. In rats at a dietary level of 10,000 ppm of Piperonyl Butoxide, (dosage of 650 mg/kg/day), there was a moderate reduction of weight gain, increased relative weight of the kidneys and increased relative weight of the liver. A 2-year bioassay of technical Piperonyl Butoxide for possible carcinogenicity was conducted by administering dietary levels of 5,000 and 10,000 ppm to rats and mice. In the female rats, lymphomas occurred at incidences that were dose related. In the male mice, adenomas of the lacrimal gland occurred at incidences that were dose related but were not significantly higher than that in the control group. Thus, the occurrence of this tumor in the male mice was not clearly related to the administration of Piperonyl Butoxide.
DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]
Rats were given pyrethrins via gavage at doses of 50, 100, and 150 mg/kg. Increased resorptions were found at the 100 and 150 mg dose levels. No significant increase in defect rate was found. Decreased reproduction occurred in rats at dose levels of 650 mg/kg/day of Piperonyl Butoxide. There was a delay of over 23 days to the first litter, reduced average number of litters, reduced average weight of pups at 4 weeks of age, and a trend to smaller litters. In a separate study, Piperonyl Butoxide was administered to rats by gavage at 300 and 1,000 mg/kg. Piperonyl Butoxide was found not to be teratogenic at levels below maternally toxic levels.

MUTAGENICITY [Specific to Active Ingredient(s)]
Piperonyl Butoxide is not considered to be a mutagen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Active Ingredients Only]

- Hydrolysis: N/A
- Photolysis: N/A
- Soil half life: N/A
- Water solubility: N/A

ECOTOXICITY [Active Ingredients Only]

- Acute Toxicity: Pyrethroids are potentially toxic to aquatic organisms. This product is not intended for aquatic environments.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water or food by disposal. Disposal: Do not reuse this container. Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

14. TRANSPORT INFORMATION

- DOT49CFR Description: Not regulated as hazardous by U.S. DOT
- Freight Classification: Shampoo, hair, N.O.I. in boxes: NMFC 59320 Sub 2 Cl 65

15. REGULATORY INFORMATION

- CERCLA (Superfund): Reportable Quantity (RQ) Pyrethrins = 1 lb
- RCRA: Not regulated as hazardous

SARA 311/312 HAZARD CATEGORIES

- Immediate Health: Yes (irritant)
- Delayed Health: No
- Fire: No
- Sudden Pressure: No
- Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.