1. Product and Company Identification

Product Code: 2724-404-270-A
Product Name: ADAMS PLUS FLEA & TICK MIST WITH PRECOR

Manufacturer Information

Company Name: Distributed by:
Farnam Companies, Inc. 301 West Osborn Road
Phoenix, AZ

Emergency Contact: CHEMTREC (800)424-9300
Alternate Emergency Contact: District of Columbia (202)483-0414
Information: Farnam Companies, Inc. (800)234-2269
Preparer Name: S.Faith, Regulatory

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name) | CAS # | Concentration | OSHA PEL | ACIGIH TLV
--- | --- | --- | --- | ---
1. 2,4-Dodecadienoic acid, 11-methoxy-3,7,11-trimethyl-, 1-methylethyl ester, [S-(E,E)]: 65733-16-6 0.27 % No data. No data.
2. Pyrethrins and Pyrethroids: 8003-34-7 0.2 % 5 mg/m3 5 mg/m3
3. Piperonyl butoxide: 51-03-6 0.37 % No data. No data.
4. N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE: 113-48-4 0.62 % No data. No data.

3. Hazards Identification

Emergency Overview
KEEP OUT OF THE REACH OF CHILDREN
Caution: Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. May cause dermal sensitization.(SKIN ALLERGY)

Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes

Potential Health Effects (Acute and Chronic)
No data available.

Recommended Exposure Limits
Pyrethrins = 5 mg/m3 (OSHA PEL & ACIGIH)

Signs and Symptoms Of Exposure
Those associated with allergies, hay fever, i.e., itchy, runny eyes, stuffy/ runny nose, chest discomfort, possible hives.

4. First Aid Measures

Emergency and First Aid Procedures
EYES: 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.
SKIN: Remove contaminated clothing and rinse skin immediately with water for 15 - 20 minutes.
INGESTION: Call physician or Poison Control Center. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give anything by mouth or
induce vomiting to an unconscious person.
INHALATION: Remove to fresh air

Note to Physician
Treat symptomatically.

5. Fire Fighting Measures

Flammability Classification: Combustible Liquid
Flash Pt: 41.00 C
Explosive Limits: LEL: 12 UEL: 3

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

Flammable Properties and Hazards
None known

Hazardous Combustion Products
Incomplete combustion may produce carbon monoxide.

Extinguishing Media
Dry chemical, CO2 or Alcohol foam

Unsuitable Extinguishing Media
Water may be ineffective.

Additional Fire Fighting Information
Firefighters should wear full protective clothing including self-contained breathing apparatus.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled
Do not allow spill to enter waterways inhabited by aquatic organisms. Soak up with absorbent material and place in container for disposal.
Absorbents: Clay granules, sawdust, dirt or equivalent.

7. Handling and Storage

Precautions To Be Taken in Handling
Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

Precautions To Be Taken in Storing
Do not contaminate water, food or food by storage. Store away from children. Do not use or store near heat or open flame.

8. Exposure Controls/Personal Protection

Respiratory Equipment (Specify Type)
See below

Eye Protection
See below

Protective Gloves
See below

Other Protective Clothing
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 protective clothing to prevent skin contact.

Engineering Controls (Ventilation etc.)
Use with adequate ventilation.

Work/Hygienic/Maintenance Practices
Wash hands before eating, drinking, smoking or using restroom.
9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical States:</td>
<td>[ ] Gas       [ X ] Liquid  [ ] Solid</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>NA</td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>41.00 C</td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL:  12 UEL:  3</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>.9504 at 20.0 C</td>
</tr>
<tr>
<td>Density:</td>
<td>NA</td>
</tr>
<tr>
<td>Bulk density:</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>NA</td>
</tr>
<tr>
<td>Evaporation Rate (vs Butyl Acetate=1):</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Miscible</td>
</tr>
<tr>
<td>Percent Volatile:</td>
<td>N.A.</td>
</tr>
<tr>
<td>Saturated Vapor Concentration:</td>
<td>NA</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>NA</td>
</tr>
<tr>
<td>Heat Value:</td>
<td>NA</td>
</tr>
<tr>
<td>Particle Size:</td>
<td>NA</td>
</tr>
<tr>
<td>Corrosion Rate:</td>
<td>NA</td>
</tr>
<tr>
<td>pH:</td>
<td>5.47</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Pale yellow transparent liquid</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable [ ] Stable [ X ]</td>
</tr>
<tr>
<td>Conditions To Avoid - Instability</td>
<td>No data available.</td>
</tr>
<tr>
<td>Incompatibility - Materials To Avoid</td>
<td>Strong oxidizers.</td>
</tr>
<tr>
<td>Hazardous Decomposition Or Byproducts</td>
<td>None</td>
</tr>
<tr>
<td>Hazardous Polymerization:</td>
<td>Will occur [ ] Will not occur [ X ]</td>
</tr>
<tr>
<td>Conditions To Avoid - Hazardous Polymerization</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

11. Toxicological Information

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORAL: LD50 (rat)</td>
<td>&gt;34,000 mg/kg (HDT) (Based on S-Methoprene)</td>
</tr>
<tr>
<td>DERMAL: LD50 (rabbit)</td>
<td>&gt;2,100 mg/kg (HDT)</td>
</tr>
<tr>
<td>4HR. Inhalation:</td>
<td>LC50 (rat) &gt;5.19 mg/L air (Based on (S)-Methoprene) LC50 (rat) &gt; 5 mg/l (Based on Pyrethrins)</td>
</tr>
</tbody>
</table>

TARGET ANIMAL SAFETY: No adverse effects have been observed in groups of dogs and cats, when applied at 7 day intervals, at levels up to 5 times the recommended rate.

CHRONIC TOXICITY : [(RS)-Methoprene Technical] Methoprene is not considered as an oncogenic compound. The NOEL for non-carcinogenic effects in an 18 month mouse study was 250 ppm. [PYRETHRINS]

In a 2-year feeding study, rats were fed pyrethrums 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 pyrethrums at a dietary level of 5,000 ppm
showed tremors, ataxia, labored respiration and salivation during the first month of exposure. [PIPERONYL BUTOXIDE] 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 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.

MUTAGENICITY: [(RS)-Methoprene Technical] Methoprene is not a mutagenic compound. [PYRETHRINS] was not found to be genotoxic and did not damage DNA in any study conducted. [PIPERONYL BUTOXIDE] Piperonyl Butoxide is not considered to be a mutagen.

Carcinogenicity/Other Information

No data available.

Hazardous Components (Chemical Name) | CAS #   | NTP | IARC | ACGIH | OSHA
--- | --- | --- | --- | --- | ---
1. 2,4-Dodecadienoic acid, 11-methoxy-3,7,11-trimethyl-, 1-methylethyl ester, [S-(E,E)]- | 65733-16-6 | n.a. | n.a. | n.a. | n.a.
3. Piperonyl butoxide | 51-03-6 | n.a. | n.a. | n.a. | n.a.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Additional Toxicological Information

SKIN IRRITATION: Non-irritating (rabbit)
EYE IRRITATION: Moderately irritating (rabbit)
SENSITIZER: Positive (guinea pig)

12. Ecological Information

ENVIRONMENTAL FATE [Based on (RS)-Methoprene]
Hydrolysis: T1/2 > 4 weeks
Photolysis: T1/2 < 10 hours
Soil half life: ~ 10 days
Water solubility: < 2 ppm

ECOTOXICITY [Based on (S)-Methoprene]

13. Disposal Considerations

Waste Disposal Method
Do not contaminate water or food by disposal. Do not reuse empty container. Wrap and put in trash. Unused product, as a waste material, may be classified as a hazardous waste due to ignitability. Recommended disposal is by an EPA approved hazardous waste management facility.

14. Transport Information

LAND TRANSPORT (US DOT) DOT Proper Shipping Name
DOT49CFR Description: N/A Via Highway & Rail. Via Air & Intl: Flammable Liquid, N.O.S. (2-propanol) 3 UN 1993 Pg. III "LTD QTY" if inner pkg. less than or equal to 5 LTR or 160 Fl. OZ.
15. Regulatory Information

CERCLA (Superfund): Reportable Quantity (RQ): 1 lb. of Pyrethrin Contact the National Response Center (800)244-8802 for spills exceeding the RQ.
RCRA: Regulated due to ignitability.

SARA 311/312 HAZARD CATEGORIES
Immediate Health: Yes (irritant)
Delayed Health: No
Fire: Yes
Sudden Pressure: No
Reactivity: No

16. Other Information

Company Policy or Disclaimer

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification.