SECTION 1: Identification

1.1. Identification
Product form: Mixture
Trade name: Adams Flea & Tick Spray for Cats
Synonyms: EPA Reg. No.: 2724-803-270, 100515243, RF2127 Pet Spray

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

1.3. Supplier
Farnam Companies, Inc.
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States
www.farnam.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
- Flammable liquids Category 3
- Serious eye damage/eye irritation Category 2B
- Specific target organ toxicity (single exposure) Category 3
Flammable liquid and vapor
Causes eye irritation
May cause drowsiness or dizziness

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
Hazard pictograms (GHS-US): GHS02, GHS07
Signal word (GHS-US): Warning
Hazard statements (GHS-US): Flammable liquid and vapor
Causes eye irritation
May cause drowsiness or dizziness
Precautionary statements (GHS-US): 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
Wear protective gloves/protective clothing/eye protection/face protection
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If inhaled: Remove person to fresh air and keep comfortable for breathing
If inhaled: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Call poison center or doctor if you feel unwell
If eye irritation persists: Get medical advice/attention
In case of fire: Use media other than water to extinguish
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Store in a well-ventilated place. Keep container tightly closed
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
No additional information available

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>Etofenprox</td>
<td>(CAS-No.) 80844-07-1</td>
<td>0.25</td>
</tr>
<tr>
<td>(S)-Methoprene Technical</td>
<td>(CAS-No.) 65733-16-6</td>
<td>0.1</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>(CAS-No.) 51-03-6</td>
<td>0.75</td>
</tr>
<tr>
<td>2-Propanol, 1-methoxy</td>
<td>(CAS-No.) 107-98-2</td>
<td>82.96 - 83.38</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 general : Call a poison center or a doctor if you feel unwell.
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 after inhalation : May cause drowsiness or dizziness.
Symptoms/effects after eye contact : May cause eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media
Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical
Fire hazard : Flammable liquid and vapor.
Reactivity : Flammable liquid and vapor.

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 : Ventilate spillage area. NO open flames, NO sparks, and NO smoking. Avoid breathing dust/fume/gas/mist/vapors/spray.
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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.

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. Non-sparking tools should be used. Use appropriate PPE.

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. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. 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
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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>2-Propanol, 1-methoxy (107-98-2)</th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH TWA (mg/m³)</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
<td>360 mg/m³</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
<td>100 ppm</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
<td>540 mg/m³</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
<td>150 ppm</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:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.
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>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Odor</td>
<td>pleasant</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 7</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>104 °F</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.952 @ 20 °C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>&lt; 10 cP</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

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

Avoid contact with hot surfaces. Heat. No flames, No sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

 Decomposes upon heating to produce toxic vapors/gases which include oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

**Adams Flea & Tick Spray for Cats**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg Female rats</td>
</tr>
</tbody>
</table>

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LD50 dermal rat > 5000 mg/kg
pH 6 - 7

<table>
<thead>
<tr>
<th>GHS-US Properties</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cells mutagen</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicant (single exposure)</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>Specific target organ toxicant (repeated exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Potential health effects

**Inhalation**
Acute: May cause drowsiness and dizziness.

**Skin**
Acute: May cause slight skin irritation.
Chronic: Repeated exposure to etofenprox can cause skin irritation.

**Eye**
Acute: Causes mild eye irritation.

**Mutagenicity**
Etofenprox has been found negative for mutagenicity potential using the Ames test, chromosomal aberration and micronucleus test methods, (s)-Methoprene has been tested and found negative for mutagenicity potential, Piperonyl butoxide was not mutagenic in a battery of tests.

**Carcinogenicity**
Etofenprox is not classified as carcinogen by NTP, IARC and OSHA, (s)-Methoprene is not classified as carcinogen by NTP, IARC and OSHA, Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA.

**Reproductive Effects**
Etofenprox did not produce teratogenic or reproductive effects in laboratory experiments, (s)-Methoprene 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.

**SECTION 12: Ecological information**

12.1. Toxicity

**Etofenprox (80844-07-1)**
- LC50 Acute fish 1: 0.0027 mg/l (Exposure time: 96h - Rainbow trout)
- LC50 Acute fish 2: 0.0165 mg/l (Exposure time: 96h - Sheepshead minnow)
- LC50 Acute crustacea 1: 0.000188 mg/l (Exposure time: 96h - Mysid shrimp)
- LC50 Acute crustacea 2: 0.0008 mg/l (Exposure time: 48 hours - Daphnia magna)
- NOEC Chronic crustacea 1: 0.00017 mg/l (Daphnia magna)

**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)
- NOEC Chronic crustacea 1: 0.048 mg/l (Fathead minnow)
- NOEC Chronic crustacea 1: 0.014 mg/l (Mysid shrimp)

**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)
12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Compound</th>
<th>Log Kow</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s)-Methoprene Technical (65733-16-6)</td>
<td>6.3</td>
<td>&lt; 2</td>
<td>-0.437</td>
</tr>
<tr>
<td>Piperonyl butoxide (51-03-6)</td>
<td>4.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Propanol, 1-methoxy (107-98-2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Compound</th>
<th>Mobility in soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s)-Methoprene Technical (65733-16-6)</td>
<td>10-14 days, rapidly hydrolyzed in soil.</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.
Additional information
Flammable vapors may accumulate in the container.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IMDG UN3092</th>
<th>IATA UN3092</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>1-METHOXY-2-PROPANOL</td>
<td>1-Methoxy-2-propanol</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

SECTION 15: Regulatory information

15.1. US Federal regulations

Piperonyl butoxide (51-03-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)
SARA Section 313 - Emission Reporting 1 %

2-Propanol, 1-methoxy (107-98-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

FIFRA Labelling
EPA Registration Number 2724-803-270
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 Hazard Statement KEEP OUT OF REACH OF CHILDREN.
## FIFRA Hazards to Humans and Domestic Animals

HAZARDS TO HUMANS - CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Repeated exposure to etofenprox can cause skin irritation.

HAZARDS TO ANIMALS - CAUTION: Do not use on puppies less than 10 weeks of age or kittens less than 12 weeks of age.

## FIFRA First Aid

If in eyes • Call a poison control center or doctor for treatment advice. • 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.

## 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

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>01 November 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>09 June 2017</td>
</tr>
<tr>
<td>Supersedes</td>
<td>01 May 2014</td>
</tr>
</tbody>
</table>