1. Product and Company Identification

Product Name: De Flea Pet & Bedding Spray
CAS #: Mixture
Product use: Pesticide
Manufacturer: Natural Chemistry, Inc.
40 Richards Ave.
Norwalk, CT 06854 US
Phone: (800) 753-1233
Emergency Phone: CHEMTREC (800) 424-9300

2. Hazards Identification

Emergency overview: CAUTION
EYE AND SKIN IRRITANT.

Potential short term health effects:
- Routes of exposure: Eye, Skin contact, Inhalation, Ingestion.
- Eyes: May cause irritation.
- Skin: May cause irritation.
- Inhalation: May cause respiratory tract irritation.
- Ingestion: May cause stomach distress, nausea or vomiting.

Target organs: Eyes. Skin. Respiratory system.

OSHA Regulatory Status: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential environmental effects: This product has not been tested.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt</td>
<td>577-11-7</td>
<td>3.13</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- **Eye contact**: Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
- **Skin contact**: Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
- **Inhalation**: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
- **Ingestion**: Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
- **General advice**: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties: Not flammable by OSHA criteria.
Extinguishing media:
- Suitable extinguishing media: Treat for surrounding material.
Unsuitable extinguishing media: Not available

Protection of firefighters:
Specific hazards arising from the chemical: Not available
Protective equipment for firefighters: Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products: May include and are not limited to: Oxides of carbon.

Explosion data:
Sensitivity to mechanical impact: Not available
Sensitivity to static discharge: Not available

6. Accidental Release Measures

Personal precautions: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas.

Methods for containment: Stop leak if you can do so without risk. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling: Use good industrial hygiene practices in handling this material.
Storage: Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits:
Ingredient(s) / Exposure Limits
Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt / ACGIH-TLV, Not established
OSHA-PEL, Not established

Engineering controls: General ventilation normally adequate.

Personal protective equipment:
Eye / face protection: Wear safety glasses with side shields.
Hand protection: Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection: As required by employer code.
Respiratory protection: Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance: Clear.
Color: Light mint green
Form: Liquid
Odor: Not available
Odor threshold: Not available
Physical state: Liquid
pH: 7.3 - 7.8
Freezing point: Not available
10. Stability and Reactivity

Reactivity
None known.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Do not mix with other chemicals.

Incompatible materials
Acids. Oxidizers.

Hazardous decomposition products
May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Component analysis - Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt</td>
<td>2643 mg/kg mouse; 1900 mg/kg rat</td>
</tr>
</tbody>
</table>

Effects of acute exposure

- **Eye**
  - May cause irritation.

- **Skin**
  - May cause irritation.

- **Inhalation**
  - May cause respiratory tract irritation.

- **Ingestion**
  - May cause stomach distress, nausea or vomiting.

Sensitization
Non-hazardous by OSHA criteria.

Chronic effects
Non-hazardous by OSHA criteria.

Carcinogenicity
Non-hazardous by OSHA criteria.

Mutagenicity
Non-hazardous by OSHA criteria.

Reproductive effects
Non-hazardous by OSHA criteria.

Teratogenicity
Non-hazardous by OSHA criteria.

Name of Toxicologically Synergistic Products
Not available
12. Ecological Information

**Ecotoxicity**

Components of this product have been identified as having potential environmental concerns.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Data</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity - Freshwater Fish - Acute Toxicity Data</td>
<td>Butanediolic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt</td>
<td>577-11-7</td>
<td>96 Hr LC50 Oncorhynchus mykiss: 20-40 mg/L [semi-static]; 96 Hr LC50 Oncorhynchus mykiss: &lt;24 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 37 mg/L [static]</td>
</tr>
<tr>
<td>Ecotoxicity - Water Flea - Acute Toxicity Data</td>
<td>Butanediolic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt</td>
<td>577-11-7</td>
<td>48 Hr EC50 Daphnia magna: 36 mg/L</td>
</tr>
</tbody>
</table>

**Persistence / degradability**

Not available

**Bioaccumulation / accumulation**

Not available

**Mobility in environmental media**

Not available

**Environmental effects**

Not available

**Aquatic toxicity**

Not available

**Partition coefficient**

Not available

**Chemical fate information**

Not available

13. Disposal Considerations

**Disposal instructions**

Review federal, state and local government requirements prior to disposal.

**Waste from residues / unused products**

Not available

**Contaminated packaging**

Not available

14. Transport Information

**U.S. Department of Transportation (DOT)**

Not regulated as dangerous goods.

15. Regulatory Information

**Occupational Safety and Health Administration (OSHA)**

29 CFR 1910.1200 hazardous chemical

Yes

**US Federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

**Section 302 extremely hazardous substance**

No

**Section 311 hazardous chemical**

Yes

**Clean Air Act (CAA)**

Not available

**Clean Water Act (CWA)**

Not available

**State regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Inventory status**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
16. Other Information

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>HMIS/NFPA</th>
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</thead>
<tbody>
<tr>
<td>Severe</td>
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<tr>
<td>Serious</td>
<td>3</td>
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<tr>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Slight</td>
<td>1</td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
</tr>
</tbody>
</table>

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Prepared by Dell Tech Laboratories Ltd. (519) 858-5021
Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.