1. Product And Company Identification

**Product Name:** Tuff Stuff® Bug Remover

**Responsible Party:** The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

**Information Phone Number:** +1 203-205-2900

**Emergency Phone Number:**
- For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
- For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for Outside US and Canada (call collect)

**MSDS Date Of Preparation:** 09/11/12

**Product Use:** Automotive maintenance product – For consumer and professional use

2. Hazards Identification

**EMERGENCY OVERVIEW**

**DANGER!**

Causes severe eye irritation and skin irritation. Vapors or mists may cause irritation to the eyes, mucous membranes and respiratory tract. May be harmful if swallowed. Ingestion may cause abdominal pain, vomiting, and diarrhea. May cause allergic skin reaction.

3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>85-95%</td>
</tr>
<tr>
<td>Alcohols, ethoxylated</td>
<td>Proprietary</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>Surfactant</td>
<td>Proprietary</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>d-Limonene</td>
<td>94266-47-4</td>
<td>&lt; 2%</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Inhalation:** Remove to fresh air. If breathing has stopped give artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention.

**Skin Contact:** Immediately flush skin thoroughly with water for 15 minutes. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.

**Eye Contact:** Immediately flush eyes with water for at least 20-30 minutes while lifting the upper and lower lids. Remove contact lenses if present after the first 5 minutes and continue flushing. Get immediate medical attention.

**Ingestion:** DO NOT induce vomiting. If the victim is fully conscious, have them rinse their mouth with water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

5. Firefighting Measures
Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Unusual Fire Hazards: Closed containers may rupture if exposed to extreme heat.

Hazardous Combustion Products: Oxides of carbon and unknown materials.

6: Accidental Release Measures

Personal Precautions: Wear appropriate protective equipment. Ventilate the area.

Environmental Precautions: Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Absorb with an inert material. Collect into a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Prevent contact with eyes. Avoid prolonged contact with skin and clothing. Avoid breathing vapors or aerosols. Wash exposed skin with soap and water after use. Keep out of the reach of children.

Store in a cool area away from direct sunlight.

8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EXPOSURE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None Established</td>
</tr>
<tr>
<td>Alcohols, ethoxylated</td>
<td>None Established</td>
</tr>
<tr>
<td>Surfactant</td>
<td>None Established</td>
</tr>
<tr>
<td>d-Limonene</td>
<td>None Established</td>
</tr>
</tbody>
</table>

Ventilation: General ventilation should be adequate for all normal use. For operations where the recommended exposure limits are exceeded, forced ventilation such as local exhaust may be needed.

Respiratory Protection: None required under normal use conditions. For applications where exposures may be excessive use a NIOSH approved organic vapor/dust mist respirator (mask) with appropriate eye protection. A full facepiece respirator provides both eye and respiratory protection. For higher concentrations an approved supplied air respirator (with escape bottle if required) or self-contained breathing apparatus may be required. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Gloves: Rubber or other impervious gloves are recommended.

Eye Protection: Avoid eye contact. Safety glasses or goggles are recommended if eye contact is possible.

Other Protective Equipment/Clothing: For operations where contact can occur an eye wash facility should be
available.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance And Odor:</strong></td>
<td>Viscous liquid.</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Specific Gravity:</strong></td>
<td>~ 1.0</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Freezing Point:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor Density:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Solubility In Water:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Percent Volatile:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Coefficient Of Water/Oil Distribution:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>&gt;104°C (&gt;220°F)</td>
</tr>
<tr>
<td><strong>Autoignition Temp:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Flammability Limits:</strong></td>
<td>LEL: Not determined</td>
</tr>
<tr>
<td></td>
<td>UEL: Not determined</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

**Stability:** Stable

**Conditions To Avoid:** None.

**Incompatibility:** Oxidizers, and acids

**Hazardous Decomposition Products:** Oxides of carbon and unknown materials.

11. Toxicological Information

**Acute Hazards:**

**Inhalation:** Mist and vapors may cause irritation to the eyes, mucous membranes and upper respiratory tract.

**Skin Contact:** May cause irritation or burns with redness and burning. May cause sensitization in some individuals.

**Eye Contact:** May cause severe irritation and burns with redness, pain and tearing. May cause permanent damage.

**Ingestion:** May be harmful if swallowed. Ingestion may cause abdominal pain, vomiting, and diarrhea. May cause kidney damage.

**Chronic Hazards:** Prolonged exposure to dilute solutions may cause dermatitis.

**Medical Conditions Aggravated By Exposure:** Individuals with chronic eye, respiratory or skin diseases may be at increased risk from exposure to this material.

**Carcinogen:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

**Acute Toxicity Values:**

Alcohols, ethoxylated: Oral rat LD50: 1,378 mg/kg; Skin rabbit LD50: 5,000 mg/kg
Surfactant: Oral rat LD50: >2,000 mg/kg; Skin rabbit LD50: >2,000 mg/kg
12. Ecological Information

No ecotoxicity data is currently available for product
Alcohols, ethoxylated: Oncorhynchus mykiss LC50: 2.4 mg/L/96h
Surfactant: Trout LC50: 240 mg/L/96h; Algae EC50:180 mg/L/72h

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated.
Canadian TDG Hazardous Materials Description: Not Regulated.
IMDG Dangerous Goods Description: Not Regulated.
IATA International Air Transport Association: Not Regulated.

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.


CERCLA Section 103: This product has no RQ, however, oil spills must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Canada:

Canadian WHMIS Classification: D-2-B

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL or the NDSL.

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.
16. Other Information

<table>
<thead>
<tr>
<th>NFPA Rating (NFPA 704):</th>
<th>Health: 2</th>
<th>Fire: 0</th>
<th>Instability: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS Rating:</td>
<td>Health: 3</td>
<td>Fire: 0</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

REVISION SUMMARY: Change to sections 2, 5, 6, 7, 9, 10, 14, 15, & 16.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH