# Material Safety Data Sheet

**FORM NUMBER: 50070**

## Section I - Product Information/Preparation Information

**Identity:** RV Hard Water Spot Remover  
**Product Use:** Maintenance  
**Manufacturer's Name:** Thetford Corporation  
**Emergency Telephone Number:** (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hours)  
**Address:** 7101 Jackson Road  
**Telephone Number for Information:** (734) 769-6000  
**Ann Arbor, MI 48103**  
**Date Prepared:** 26-Jan-09  
**Prepared By:** Janis M. Thomson

## Section II - Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td>15 mg/m3 TWA</td>
<td>10 mg/m3 TWA</td>
<td>None established</td>
</tr>
<tr>
<td>Sulfamic Acid</td>
<td>5329-14-6</td>
<td></td>
<td></td>
<td>None established</td>
</tr>
</tbody>
</table>

## Section III - Hazards Identification and Toxicological Information

**Emergency Overview:**  
Warning! Causes eye and skin irritation.

**Route(s) of Entry:**  
**Inhalation:** May cause irritation.  
**Skin Contact:** Causes irritation.  
**Eye contact:** Causes irritation  
**Ingestion:** May cause corrosion of the mucous membrane with stomach discomfort and nausea.

**Chronic effects:**  
- **Carcinogenicity:** Not carcinogenic.  
- **Teratogenicity:** Not teratogenic.  
- **Mutagenicity:** Not mutagenic.

**Sensitization to Material:** None known

**Synergistic materials:** None known

**Toxicological Information:**  
- Sulfamic Acid: LD₅₀: 3160mg/kg (oral, rat)  
- Citric Acid: LC₅₀: 6730mg/kg (oral, rat)

## Section IV - First Aid Procedures:

**Inhalation:** Remove to fresh air. If discomfort persists, contact a physician.  
**Ingestion:** Do not induce vomiting. Drink large amounts of water. Contact a physician.  
**Skin:** Flush contacted area with large amounts of water. Wash with soap and water. If irritation persists, get medical attention.  
**Eyes:** Flush contacted area with lots of water. Irrigate eyes for a minimum of 15 minutes. Get medical attention immediately.

## Section V - Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Flash Point (Method used)</th>
<th>Flammable Limits by Volume</th>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;200°F (93°C)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Extinguishing Media:**  
- Foam

**Hazardous Combustion Products:**  
Nitrogen, sulfur oxides, carbon oxides and ammonia

**Special Fire fighting Procedures:** None

**Auto-ignition Temperature:** Not applicable

**Sensitivity to Static Discharge:** No data available

**Unusual Fire and Explosion Hazards:** None

**Conditions of Flammability:** Not flammable

**Explosion Data:** None

**Sensitivity to Mechanical Impact:** No data available
### Section VI - Personal Protective Equipment

**Respiratory Protection:**
- Not required.

**Engineering Controls:**
- Maintain adequate ventilation.

**Protective Gloves:**
- Rubber or neoprene

**Eye Protection:**
- Safety glasses or goggles.

**Other Protective Clothing or Equipment:**
- Protective clothing to avoid skin contact. Eyewash station and safety shower.

**Work/Hygienic Practices**
- Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.

### Section VII - Accidental Release Measures/Preventative Measures

**Steps to be Taken in Case Material is Released or Spilled:**
- Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed container for disposal. Mop the area with clean, cold water.

**Waste Disposal Method**
- Dispose of in accordance with federal, state and local regulations.

**Precautions to be Taken in Handling and Storing**
- Do not store above 100°F (38°C). Do not freeze.

**Other Precautions**
- Do not get liquid in eyes. Wash thoroughly after handling.

### Section VIII - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density (AIR = 1)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>1.037</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>NA</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>32°F (0°C)</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>pH</td>
<td>2.0 - 3.0</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Clear, light amber, odorless liquid</td>
</tr>
</tbody>
</table>

### Section IX - Reactivity Hazards

<table>
<thead>
<tr>
<th>Stability</th>
<th>Hazardous Polymerization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>May Occur</td>
</tr>
<tr>
<td>Unstable</td>
<td>Will Not Occur</td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**
- Strong oxidizers, nitrates, strong bases, cyanides, sulfides, and carbonates.

**Hazardous Decomposition or Byproducts**
- Sulfur dioxide, sulfur trioxide, carbon dioxide, carbon monoxide, nitrogen and ammonia.

**Conditions to Avoid**
- Incompatible materials and elevated temperatures.

### Section XI - Shipping Information

**Transportation Status:**
- US DOT: Not Regulated

**Proper Shipping Name:**
- NA

**Class:**
- NA

For other modes of transportation, consult the individual regulations (IATA, IMDG) for shipping information.