MATERIAL SAFETY DATA SHEET

ADDOVATE® SM 264D

RHEIN CHEMIE CORPORATION
145 Parker Court
Chardon, OH 44024

TRANSPORTATION EMERGENCY
CALL CHEMTREC.........: (800) 424-9300
INTERNATIONAL ...........: (703) 527-3887

NON-TRANSPORTATION
RCC EMERGENCY PHONE : (440) 285-3547
RCC INFORMATION PHONE: (800) 289-2436

Section 1: Product and Company Identification

Product Name: ADDOVATE® SM 264D
Article Number: 2280360

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name/ CAS Number</th>
<th>Exposure Limits</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfated Castor Oil Sodium Salt 68187-76-8</td>
<td>OSHA (PEL): Not Established</td>
<td>30% 60%</td>
</tr>
<tr>
<td></td>
<td>ACGIH (TLV): Not Established</td>
<td></td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

EMERGENCY OVERVIEW

CAUTION! Non-regulated. Color: Light Yellow Form: Liquid Odor: Fatty
May cause skin irritation. May cause eye irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

POTENTIAL HEALTH EFFECTS

Route(s) of Entry: Skin Contact, Eye Contact, Inhalation

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE
Inhalation Hazards

Acute Inhalation Hazards: Under normal working conditions, using good industrial hygiene practices, this material is not expected to pose an inhalation hazard. However, if conditions exist where this material may be misted or vapors are generated from heating, this product may than cause minor irritation of the mucous membranes and the upper respiratory tract.

Chronic Inhalation Hazards: Expected to be similar to those for acute inhalation.

Skin Hazards

Acute Skin Hazards: May irritate the skin. Symptoms may include redness and itching.

Chronic Skin Hazards: None reported for this product as a whole.

Eye Hazards

Acute Eye Hazards: Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

Chronic Eye Hazards: None reported for this product as a whole.

Ingestion Hazards

Acute Ingestion Hazards: None reported

Chronic Ingestion Hazards: None reported

Carcinogenic Components:

NTP: None

IARC: None

OSHA: None

Medical Conditions Aggravated by Exposure: None reported

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Section 4: First Aid Measures

First Aid for Eye: In case of contact, flush eyes with large quantities of water for at least 15 minutes. The eyelids should be held apart during irrigation to ensure thorough flushing of all eye tissue. Get medical attention.

First Aid for Skin: In case of skin contact, wash affected areas with soap and water. Get medical attention if irritation develops or persists. Wash clothing and clean shoes before reuse.

First Aid for Inhalation: If inhaled, remove to fresh air.

First Aid for Ingestion: If material is ingested, do not induce vomiting unless directed to do so by medical personnel. Should vomiting occur, keep patients head below hip level to prevent aspiration of fluid into the lungs. Get medical attention.

Note to Physician: Treat symptomatically.
Section 5: Fire Fighting Measures

Flash Point: > 212 °F (> 100 °C) Cleveland Open Cup (ASTM D-92)

Flammable Limits:
- Upper Explosion Limit (UEL %): Not Established
- Lower Explosion Limit (LEL %): Not Established
- Auto-ignition Temperature: Not Established

Extinguishing Media:
- Suitable: Dry Chemical, Carbon Dioxide, Foam

Special Fire Fighting Procedures:
- Evacuate non-emergency personnel to a safe area. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Section 6: Accidental Release Measures

Spill or Leak Procedures:
- Do not allow spilled or released material to enter ground water, waste water or soil. Emergency clean-up personnel should wear appropriate protection when entering the spill area for clean-up. Cover the spill with absorbent material such as sand, sweeping compound or diatomaceous earth. Contain and collect spill for approved disposal.

Section 7: Handling and Storage

Storage Temperature:
- Minimum: 59 °F (15 °C)
- Maximum: 68 °F (20 °C)

Shelf Life: 3 Months

Handling/Storage Precautions:
- Store in a dry place away from excessive heat. Avoid contact with eyes and skin. Keep container tightly closed when not in use. It is recommended that the storage facility be equipped with a sprinkler system.

Other Notes:
- Protect from freezing.
Section 8: Exposure Controls/Personal Protection

**Personal Protection Equipment**

**Eye Protection Requirements:** Chemical safety goggles.

**Skin Protection Requirements:** Rubber gloves and other protective clothing as appropriate to prevent skin contact.

**Ventilation Requirements:** Use local exhaust ventilation if dusting or misting is a problem, to maintain air levels below the recommended exposure limit. Thermal processing equipment should be ventilated to control gases and fumes given off during processing.

**Respirator Requirements:** Under normal handling conditions, at room temperature using good industrial hygiene practices, a respirator is not required. In areas of high concentrations, confined space or other poorly ventilated areas and for large spill clean-up sites, fresh air-line respirators or self-contained breathing apparatus should be used. Observe OSHA regulations for respirator use (29 CFR 1910.134.)

**Additional Protective Measures:** Emergency showers and eye wash stations should be available. Educate and train employees on the safe use and handling of this product. Employees should wash their hands and face before eating, drinking, or using tobacco products.

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Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical Form:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Light Yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Fatty</td>
</tr>
<tr>
<td>pH:</td>
<td>7.5</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>212 °F (100 °C)</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.03 @ 77 °F (25 °C)</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

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Section 10: Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability:</th>
<th>Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Polymerization:</td>
<td>Will not occur</td>
</tr>
<tr>
<td>Substances to Avoid:</td>
<td>Oxidizing agents, Isocyanates</td>
</tr>
<tr>
<td>Conditions to Avoid:</td>
<td>None Known</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Decomposition Products:</td>
<td>Sulfur Dioxide</td>
</tr>
</tbody>
</table>
Section 11: Toxicological Information

Toxicity Data for ADDOVATE® SM 264D
Toxicity Note: No data available for this product.

Toxicity Data for Sulfated Castor Oil Sodium Salt
Toxicity Note: No data available for this component.

Section 12: Ecological Information

Ecological Data for ADDOVATE® SM 264D
Ecological Note: No data available for this product.

Ecological Data for Sulfated Castor Oil Sodium Salt
Ecological Note: No data available for this component.

Section 13: Disposal Considerations

Waste Disposal Method: Disposal must be in compliance with federal, state and local environmental control regulations. If incinerated, toxic and corrosive combustion gases must be properly handled.

Empty Container Precautions: Label precautions also apply to this container when empty.

Section 14: Transportation Information

Technical shipping name: Rubber Additive

Freight Class
  Bulk: Chemicals, N.O.I. (NMFC 60000)
  Package: Chemicals, N.O.I. (NMFC 60000)

Product Label: Product Label Established

Domestic Surface Transportation (DOT)
Hazard Class or Division: Non-Regulated

Marine Transportation (IMO / IMDG)
Hazard Class Division: Non-Regulated
Number:

Air Transportation (ICAO / IATA)
Hazard Class Division: Non-Regulated

Section 15: Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

TSCA Inventory List: On TSCA Inventory

CERCLA Hazardous Substance:

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Reportable Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

SARA Title III

SARA Section 302 Extremely Hazardous Substances:

<table>
<thead>
<tr>
<th>Component(s)/CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

SARA Section 311/312 Hazard Categories:

Immediate Health Hazard

SARA Section 313 Toxic Chemicals:

<table>
<thead>
<tr>
<th>Component(s)/CAS Number</th>
<th>Reporting Threshold</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product, should be classified as a hazardous waste. (40 CFR 261.20-24)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

State Right-to-Know Information

<table>
<thead>
<tr>
<th>Component(s)/CAS Number</th>
<th>State Code</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 7732-18-5</td>
<td>PA-N, NJ-N</td>
<td>40% 70%</td>
</tr>
<tr>
<td>Sulfated Castor Oil Sodium Salt 68187-76-8</td>
<td>PA-N, NJ-N</td>
<td>30% 60%</td>
</tr>
<tr>
<td>Impurities PA-N, NJ-N</td>
<td>1% 5%</td>
<td></td>
</tr>
</tbody>
</table>

State Code Translation Table

- PA-N = Pennsylvania Non-hazardous
- NJ-N = New Jersey Other - includes predominant ingredients
Section 16: Other Information

HMIS Rating

<table>
<thead>
<tr>
<th>Health</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
*=Chronic Health Hazard

RHEIN CHEMIE CORPORATION’s method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by RHEIN CHEMIE CORPORATION as a customer service.

Contact:    HES Dept.
Phone:      (440) 285-3547
MSDS Number: 00000000905
Version Date: 02/05/2008
MSDS Version: 1.7

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Indicates Relevant Change Made.