MATERIAL SAFETY DATA SHEET

ADDOCAT SO 485D

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: ADDOCAT SO 485D
Article Number: 2276045

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name/ CAS Number</th>
<th>Exposure Limits</th>
<th>Concentration Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stannous Octoate 301-10-0</td>
<td>OSHA (PEL): 2.00 mg/m³ TWA ACGIH (TLV): 2.00 mg/m³ TWA</td>
<td>95%</td>
<td>0%</td>
</tr>
<tr>
<td>Ethylhexanoic acid 149-57-5</td>
<td>OSHA (PEL): Not Established ACGIH (TLV): Not Established</td>
<td>1%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

EMERGENCY OVERVIEW

DANGER! Color: Colorless to Yellow  Form: Liquid  Odor: Characteristic
Causes respiratory tract irritation. Causes skin irritation. Causes eye burns. May cause blindness. Harmful if swallowed. Use water as fog or mist; solid streams may spread fire. Toxic gases/fumes are given off during burning or thermal decomposition.

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

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation Hazards
Acute Inhalation Hazards: Harmful if inhaled. This product may be expected to cause severe irritation and possibly burns of the upper respiratory tract and mucous membranes of the mouth, nose and throat.

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

Skin Hazards
Acute Skin Hazards: Direct contact may cause severe irritation, pain or local discomfort.

Eye Hazards
Acute Eye Hazards: Upon contact this product is expected to cause severe irritation resulting in burns and possible permanent injury to the eyes.

Chronic Eye Hazards: Effects are expected to be similar to those listed above for acute eye exposure.

Ingestion Hazards
Acute Ingestion Hazards: Ingestion of this product will cause severe irritation and burns of the mouth, throat, esophagus and stomach with abdominal pain, vomiting and diarrhea.

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

Carcinogenic Components:
NTP: None
IARC: None
OSHA: None

Medical Conditions Aggravated by Exposure: May aggravate existing eye, skin or respiratory conditions.

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. Call a physician immediately.

First Aid for Skin: In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Call a physician immediately.

First Aid for Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately.
First Aid for Ingestion: If material is ingested, do not induce vomiting unless directed to do so by medical personnel. Give victim one or two glasses of water or milk. Never give anything by mouth to an unconscious person. Should vomiting occur, keep patient's head below hip level to prevent aspiration of fluid into the lungs. Call a physician immediately.

First Aid Other: If ingested, immediately rinse mouth out with plenty of water.

Note to Physician: Treat symptomatically.

Section 5: Fire Fighting Measures

Flash Point: > 212 °F (> 100 °C)

Flammable Limits:
Upper Explosion Limit (UEL %): Not Established
Lower Explosion Limit (LEL %): Not Established

Auto-ignition Temperature: Not Established

Extinguishing Media:
Suitable: Water, Carbon Dioxide, Dry Chemical, Water spray for large fires.

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. A solid stream of water directed into the burning material could spread the fire. Contain fire fighting water for treatment and proper disposal. During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Unusual Fire/Explosion Hazards: Vapors may form explosive mixtures with air.

Section 6: Accidental Release Measures

Spill or Leak Procedures: Extinguish all ignition sources. Emergency clean-up personnel should wear appropriate protection when entering the spill area for clean-up. Do not allow spilled or released material to enter ground water, waste water or soil. Notify local health authorities and other appropriate agencies if such contamination should occur. Cover the spill with absorbent material such as sand, sweeping compound or diatomaceous earth. Scoop up solid absorbent for waste disposal. Ventilate area to remove vapors.

Other Accidental Release Notes: Rhein Chemie requires that CHEMTREC be immediately notified (800-424-9300) when this product is unintentionally released from its container during its course of distribution, regardless of the amount released. Such notification must be immediate and made by
the person having knowledge of the release. Distribution includes transportation, storage incidental to transportation, loading and unloading.

Section 7: Handling and Storage

Storage Temperature: Store at ambient conditions

Shelf Life: Not Established


Handling/Storage Precautions: Keep away from heat, sparks and flames. Store in a dry place away from excessive heat. This product may form explosive vapor/air mixtures. Keep container tightly closed when not in use. Do not get in eyes. Do not get on skin or clothing. Store away from food and beverages. Storage area should be equipped with sprinkler system. Handle in accordance with good industrial hygiene and safety practices.

Other Notes: After opening, purge container with nitrogen before closing.

Section 8: Exposure Controls/Personal Protection

Personal Protection Equipment

Eye Protection Requirements: Contact lenses should not be worn. Chemical safety goggles, full-face shield. If vapor exposure is causing irritation, use a full-face, air-supplied respirator.

Skin Protection Requirements: Permeation resistant gloves (neoprene, nitrile, or PVC) and impervious clothing (long sleeve shirts) are recommended.

Ventilation Requirements: Thermal processing equipment should be ventilated to control gases and fumes given off during processing.

Respirator Requirements: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA). Air purifying respirator equipped with a full-face organic vapor and dust/mist cartridge if vapors are near or exceeding the exposure limits listed in Section 2. 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. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of this product.
Section 9: Physical and Chemical Properties

Physical Form: Liquid
Color: Colorless to Yellow
Odor: Characteristic
pH: 12.1
Boiling Point: > 356 °F (> 180 °C)
Melting/Freezing Point: Not Established
Viscosity: 2,300 mPa.s @ 77 °F (25 °C)
Solubility in Water: Miscible
Specific Gravity: 1.02
Bulk Density: Not Established
Vapor Density: Not Established

Section 10: Stability and Reactivity

Stability: Stable
Hazardous Polymerization: Will not occur
Substances to Avoid: Nitrosating agents, Acids, Zinc
Conditions to Avoid: Avoid heat, flames, sparks and other sources of ignition.
Decomposition Temperature: Not Established
Decomposition Products: Thermal decomposition may produce toxic oxides and fumes of the components of this product and other potentially toxic fumes.

Section 11: Toxicological Information

Toxicity Data for ADDOCAT SO 485D
Toxicity Note: No data available for this product.

Toxicity Data for Stannous Octoate
Acute oral toxicity: LD50 = 3,400 mg/kg (Rat)
Acute dermal toxicity: LD50 = > 2,000 mg/kg (Rat)
Eye Irritation: Moderately irritating (Rabbit)
Skin Irritation: Moderately irritating (Rabbit)

Toxicity Data for Ethylhexanoic acid
Acute oral toxicity: LD50 = 3 g/kg (Rat)
Acute dermal toxicity: LD50 = 1,260 uL/kg (Rabbit)
LD50 = 6,300 uL/kg (Guinea pig)
Eye Irritation: Severely irritating (Rabbit) Standard Draize Test
Skin Irritation: Slightly irritating (Rabbit) Open Draize Test
Mutagenicity: Negative test results (Ames Salmonella Test)

Section 12: Ecological Information

Ecological Data for ADDOCAT SO 485D
Ecological Note: Water Pollution Class WGK 2 - impairment of water quality (German Water Resources Act)

Ecological Data for Stannous Octoate
Fish Toxicity: 70 mg/L, 96 hrs. Fathead minnow (Pimephales promelas)
Invertebrate Toxicity: 24.5 mg/L, 48 hrs. Water flea (Daphnia magna)

Ecological Data for Ethylhexanoic acid
Fish Toxicity: > 250 mg/L, 96 hrs. Ide, silver or golden orfe (Leuciscus idus)
Invertebrate Toxicity: 85.4 mg/L, 48 hrs. Water flea (Daphnia magna)
Inhibition Bacteria: EC50: 330 mg/L, 17 hrs.
Plant Toxicity: 61 mg/L, 72 hrs. Algae

Section 13: Disposal Considerations

Waste Disposal Method: Incineration is the preferred method of disposal. If incinerated, toxic and corrosive combustion gases must be properly handled.

Empty Container Precautions: Empty container retains product residue and can be hazardous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity, or other sources of ignition. Recondition or dispose of empty container in accordance with government regulations.

Section 14: Transportation Information

Technical shipping name:

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
Number:  

Section 15: Regulatory Information  

United States Federal Regulations  

OSHA Hazcom Standard Rating: Hazardous

TSCA Inventory List: On TSCA Inventory

CERCLA Hazardous Substance:  
Component(s) Reportable Quantity  
None

SARA Title III  
SARA Section 302 Extremely Hazardous Substances:  
Component(s)/ Concentration  
CAS Number Min. Max.  
None

SARA Section 311/312 Hazard Categories:  
Immediate Health Hazard, Delayed Health Hazard

SARA Section 313 Toxic Chemicals:  
Component(s)/ Reporting Concentration  
CAS Number Threshold Min. Max.  
None

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  
Component(s)/ Concentration  
CAS Number State Code Min. Max.  
Stannous Octoate PA-N, NJ-H, MA-H 95% 0%  
301-10-0  
Ethylhexanoic acid PA-N, NJ-N 1% 5%  
149-57-5
State Code Translation Table
PA-N = Pennsylvania Non-hazardous
NJ-N = New Jersey Other - includes predominant ingredients
NJ-H = New Jersey Hazardous Substance List
MA-H = Massachusetts Hazardous Substance List

Foreign Chemical Inventory List(s)

<table>
<thead>
<tr>
<th>EINECS (Europe):</th>
<th>Listed</th>
</tr>
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<tbody>
<tr>
<td>DSL (Canada):</td>
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<tr>
<td>AICS (Australia):</td>
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<td>MITI (Japan):</td>
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<tr>
<td>MOE (Korea):</td>
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<td>PICCS (Philippines):</td>
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Section 16: Other Information

HMIS Rating

<table>
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<tr>
<th>Health</th>
<th>* 3</th>
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<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: 000000001674
Version Date: 01/17/2006
MSDS Version: 3.0

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Indicates Relevant Change Made.