MATERIAL SAFETY DATA SHEET

ADDITIN RC 5010  473D/1892S

RHEIN CHEMIE CORPORATION
145 Parker Court
Chardon, OH  44024

TRANSPORTATION EMERGENCY
CALL CHEMTREC........ : (800) 424-9300
INTERNATIONAL .......... : (700) 285-3887

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

Section 1: Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>ADDITIN RC 5010  473D/1892S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article Number:</td>
<td>56699051</td>
</tr>
<tr>
<td>Product Use:</td>
<td>Additive for lubricants</td>
</tr>
</tbody>
</table>

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name/ CAS Number</th>
<th>Concentration</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Exposure Limits</td>
</tr>
</tbody>
</table>

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3: Hazards Identification

EMERGENCY OVERVIEW

Non-regulated.  Color: Yellow to Brown  Form: Liquid  Odor: Characteristic
Irritating gases/fumes may be given off during burning or thermal decomposition.

POTENTIAL HEALTH EFFECTS

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

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation Hazards
Acute Inhalation Hazards: Gases and fumes evolved during thermal processing or decomposition of this material may cause irritation to the upper respiratory tract.
Chronic Inhalation Hazards: Expected to be similar to those for acute inhalation.

Skin Hazards
Acute Skin Hazards: Contact with this material is expected to be non-irritating to the skin. Should irritation occur, it is expected to be minor and may cause some redness and discomfort of the affected area.

Chronic Skin Hazards: Effects of chronic skin exposure are expected to be similar to those listed for acute skin exposure.

Eye Hazards
Acute Eye Hazards: This product is not expected to cause harm to the eye.

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

Ingestion Hazards
Acute Ingestion Hazards: Not a likely route of exposure. However, if ingested in large quantities, this product may cause nausea and vomiting.

Chronic Ingestion Hazards: Expected to cause effects similar to acute ingestion.

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

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 if irritation develops or persists.

First Aid for Skin: Immediately remove contaminated clothing and shoes. 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. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation develops or persists.

First Aid for Ingestion: If material is ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

Note to Physician: Symptoms of poisoning may only appear several hours later. Treat symptomatically.
Section 5: Fire Fighting Measures

Flash Point: Not Established

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

Auto-ignition Temperature: Not Established

Extinguishing Media:
- Suitable: Carbon Dioxide, Dry Chemical, Foam
- Unsuitable: High pressure water jet

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. Contain fire fighting water for treatment and proper disposal.

Unusual Fire/Explosion Hazards:
Vapors may form explosive mixtures with air. Formation of noxious fumes during thermal decomposition.

Section 6: Accidental Release Measures

Spill or Leak Procedures:
Keep unnecessary personnel out of spill area. Emergency clean-up personnel should wear appropriate protection when entering the spill area for clean-up. Cover spill with absorbent material, such as sand, sweeping compound or diatomaceous earth; collect material for disposal. 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.

Section 7: Handling and Storage

Storage Temperature: Not Established - Ambient Recommended

Handling/Storage Precautions:
Avoid getting in eyes or on skin. Do not breath dust, vapors or mist. Use with adequate ventilation. Do not store with incompatible materials. Do not store or consume food, drink or tobacco in area where they may become contaminated with this material. Keep container tightly closed when not in use. Handle in accordance with good industrial hygiene and safety practices.

Other Notes:
Material should be stored in a clean, dry environment in sealed containers.
Section 8: Exposure Controls/Personal Protection

**Personal Protection Equipment**

**Eye Protection Requirements:** Safety glasses with side shields or goggles are recommended. In a splash hazard environment chemical goggles should be used in combination with a full face-shield.

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

**Hand Protection Requirements:** Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

**Ventilation Requirements:** Use local exhaust ventilation if dusting or misting is a problem, to maintain air levels below the recommended exposure limit. Engineering controls should be sufficient to ensure airborne levels do not reach hazardous levels. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

**Respirator Requirements:** Under conditions of frequent use or heavy exposure, a NIOSH/MSHA respirator is recommended. The specific respirator selected must be based on contamination levels found in the workplace, 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).

**Additional Protective Measures:** Safety showers and eyewash stations should be accessible to the work area. Employees should wash their hands and face before eating, drinking, or using tobacco products.

Section 9: Physical and Chemical Properties

**Physical Form:** Liquid

**Color:** Yellow to Brown

**Odor:** Characteristic

**pH:** 6

**Boiling Point:** Not Established

**Melting/Freezing Point:** < 23 °F (< -5 °C) @ 1.013 hPa

**Viscosity:** Approximately DIN 51562750 mm²/s @ 104F (40°C)

**Solubility in Water:** Soluble

**Specific Gravity:** 1.06 @ 68 °F (20 °C) DIN 51757

**Vapor Pressure:** Not Established

Section 10: Stability and Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur
Conditions to Avoid: Extremes of temperature and direct sunlight
Decomposition Temperature: Not Established
Decomposition Products: Oxides of carbon, and other undetermined fragments.

Section 11: Toxicological Information

Toxicity Data for ADDITIN RC 5010 473D/1892S
Toxicity Note: No data available for this product.

Section 12: Ecological Information

Ecological Data for ADDITIN RC 5010 473D/1892S
Fish Toxicity: > 1,000 mg/L, 48 h. Water flea (Daphnia magna)
Biodegradation: OECD 301B = 82 % Readily biodegradable
Plant Toxicity: EC50 = 75.38 mg/L, 72 h. Green algae (Desmodesmus subspicatus)

Section 13: Disposal Considerations

Waste Disposal Method: Disposal must be in compliance with federal, state and local environmental control regulations. Do not discharge waste into sewer, lake, river, or streams as this product may be toxic to aquatic organisms.
Empty Container Precautions: Do not reuse empty container. Label precautions also apply to this container when empty. Recondition or dispose of empty container in accordance with government regulations.
Other Disposal 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. Distribution includes transportation, storage incidental to transportation, loading and unloading. Such notification must be immediate and made by the person having knowledge of the release.

Section 14: Transportation Information

Technical shipping name: Lubricating Oil Additives
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:

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**Section 15: Regulatory Information**

**United States Federal Regulations**

**OSHA Hazcom Standard**  
Rating: Non-Hazardous

**TSCA Inventory List:** On TSCA Inventory

**CERCLA Hazardous Substance:**  
Component(s): None  
Reportable Quantity:

**SARA Title III**

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

**SARA Section 311/312 Hazard Categories:** Non-hazardous under Section 311/312

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

**RCRA Status:**  
If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, 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>
<th>Min.</th>
<th>Max.</th>
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<tbody>
<tr>
<td>Rape oil, polymd., oxidized</td>
<td>PA-N, NJ-N</td>
<td></td>
<td>0%</td>
<td>100%</td>
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State Code Translation Table
PA-N = Pennsylvania Non-hazardous
NJ-N = New Jersey Other - includes predominant ingredients

### Section 16: Other Information

**NFPA 704M Rating**

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<tbody>
<tr>
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0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

**HMIS Rating**

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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: 000000007384
Version Date: 01/09/2013
MSDS Version: 4.0

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Indicates Relevant Change Made.