Cocoon 501

SECTION 1 - IDENTIFICATION
MANUFACTURER: Andek Corporation
ADDRESS: 850 Glen Avenue, Moorestown, NJ 08057
TELEPHONE: 1-856-786-6900*
In an emergency, contact CHEMTREC 1-800-424-9300; Outside the United States call +1-703-527-3887
PRODUCT IDENTIFIER: Cocoon 501
RECOMMENDED USE: Industrial Coating

SECTION 2 – HAZARD IDENTIFICATION
Skin: May cause skin irritation.
Eyes: Causes eye irritation.
Inhalation: Harmful if inhaled.
Ingestion: Do Not ingest. Aspiration during ingestion or vomiting may cause pulmonary injury.
Carcinogenicity: Category 2
Toxic for Reproduction: Category 1B

SIGNAL WORD: Danger

HAZARD STATEMENTS:
• Highly flammable liquid and vapor.
• May be harmful if swallowed and enters airways.
• Causes skin irritation.
• Causes eye irritation.
• Harmful if inhaled.

PICTOGRAMS:

PRECAUTIONARY STATEMENTS:
Prevention:
• Do Not handle until all safety precautions have been read and understood.
• Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
• Do Not spray on an open flame or other ignition source.
• Keep container tightly closed.
• Ground/bond container and receiving equipment.
• Use explosion-proof electrical/ventilating/light/equipment.
• Use only non-sparking tools.
• Take precautionary measures against static discharge.
• Do Not breathe fume, vapors or spray.
• Do Not get in eyes, on skin, or on clothing.
• Wash thoroughly after handling.
• Do Not eat, drink or smoke when using this product.
• Use only outdoors or in a well-ventilated area.
• Wear protective gloves/protective clothing/eye protection/face protection.
Response:
- **Skin:** Wash with plenty of water.
- **Eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.
- **Inhalation:** If experiencing respiratory symptoms call a POISON CENTER/doctor.
- **Ingestion:** Rinse mouth. Do Not induce vomiting.

Storage:
- Store in a well ventilated place. Keep container tightly closed.
- Store at temperature between 40°F and 90°F.

Disposal:
- Waste disposal should be in accordance with existing federal, state and local environmental control laws.
- Incineration is the preferred method.

SECTION 3 – COMPOSITION

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>APPROX %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>26</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>40</td>
</tr>
<tr>
<td>Copolymer of vinyl chloride and vinyl acetate</td>
<td>9003-22-9</td>
<td>20</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
<td>117-81-7</td>
<td>9</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>4</td>
</tr>
<tr>
<td>Diglycidyl Ether of Bisphenol A Homopolymer</td>
<td>25085-99-8</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Phosphorous Acid, Diisodecyl Phenyl Ester</td>
<td>25550-98-5</td>
<td>&gt;1</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

**Skin:**
- Get medical aid.
- Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing/shoes.

**Eyes:**
- Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
- If irritation persists, seek medical attention.

**Inhalation:**
- Remove person to fresh air.
- If signs/symptoms continue, get medical attention.
- Give oxygen or artificial respiration as needed.

**Ingestion:**
- Do Not induce vomiting.
- If vomiting does occur, have victim lean forward to prevent aspiration.
- Rinse mouth with water.
- Seek medical attention.
- Never give anything by mouth to an unconscious individual.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:
- **Small fire:** Use dry chemicals, CO₂, water spray or alcohol-resistant foam.
- **Large fire:** Use water spray, water fog or alcohol-resistant foam. Cool all affected containers with flooding quantities of water.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):
- Carbon oxides expected to be the primary hazardous combustion product.

Special protective equipment and precautions for firefighters:
- Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Keep unopened containers cool by spraying with water.

**Hazardous Combustion Products:** Carbon dioxide, carbon monoxide, hydrogen chloride, smoke, fumes and unburned hydrocarbons

**Flammable Properties Classification:** OSHA/NFPA Class 3 Flammable Liquid.

**Flash point:** -18 °C (0 °F) - closed cup

**Auto ignition temperature:** 465 °C (869 °F)
SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Do Not inhale vapors, mist or gas.
- Ensure adequate ventilation.
- Remove all sources of ignition.
- Evacuate personnel to safe areas.
- Beware of vapors accumulating to form explosive concentrations.
- Vapors can accumulate in low areas.

Environmental precautions:
- Stop leak.
- Contain spill if possible and safe to do so.
- Prevent product from entering drains.

Methods and materials for containment and cleaning up:
- Absorb with an inert dry material and place in an appropriate waste disposal container.
- Keep disposal containers closed when finished.

SECTION 7 – HANDLING & STORAGE

Precautions for safe handling:
- Do not get on skin or in eyes.
- Do not inhale vapor or mist.
- Keep away from sources of ignition - No smoking.
- Take measures to prevent the buildup of electrostatic charge.
- Open and handle container with care.
- Metal containers involved in the transfer of this material should be grounded and bonded.

Recommendations on the conditions for safe storage:
- Store in a tightly closed container and keep in a cool, dry, well-ventilated place.
- Keep container away from extreme heat and strong oxidizing agents.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>PEL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>200 ppm (TWA - OSHA)</td>
<td>20 ppm (TWA - ACGIH)</td>
</tr>
<tr>
<td>Acetone</td>
<td>750 ppm (TWA - OSHA)</td>
<td>500 ppm (TWA - ACGIH)</td>
</tr>
<tr>
<td>Titanium Dioxide (dust)</td>
<td>15mg/m³ (8 hr. TWA)</td>
<td>10mg/m³ (8 hr. TWA)</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
<td>N/A</td>
<td>5 mg/m³ (TWA - ACGIH)</td>
</tr>
<tr>
<td>Copolymer of vinyl chloride and vinyl acetate</td>
<td>5 mg/m³ (OSHA)</td>
<td>3 mg/m³ (TWA - ACGIH)</td>
</tr>
</tbody>
</table>

Engineering controls:
- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below).
- An eye wash station and safety shower should be located near the work-station.

Individual protection measures:
- Personal protective equipment should be selected based upon the conditions under which this material is used.
- A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations.

Inhalation protection:
- The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation.
- If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.
- Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

Eye protection:
- Safety glasses equipped with side shields are recommended as minimum protection in industrial settings.
- Wear goggles if splashing or spraying is anticipated.
- Wear goggles and face shield if material is heated above 125°F (51°C).
- Have suitable eye wash water available.
Skin and body protections:
- None required for incidental contact.
- Use gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected.
- Use clean protective clothing if splashing or spraying conditions are present.
- Protective clothing may include long-sleeve outer garment, apron, or lab coat.
- If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower.
- Launder contaminated clothing before reuse or discard.

Other hygienic practices and protective equipment:
- Use good personal hygiene practices.
- Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work.
- Do Not use gasoline, kerosene, solvents or harsh abrasives as skin cleaners.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Semi-Thixotropic liquid
Physical state: Liquid
Color: White
Odor: Pungent sweet odor
Odor threshold: None established
pH: Not applicable
Melting point/freezing point: -112°F
Initial boiling point and boiling range: 181°F
Flash point: 0°F (-18°C)
Evaporation rate: 4.6 (butyl acetate = 1)
Flammability: Flammable
Upper/lower flammability or explosive limits: (by volume) 12.0% / 3.0%
Vapor pressure: 0.3 kPa (6mmHg) @ 20°C (68°F)
Vapor density: 5 (air = 1)
Relative density: 0.91 kg/l
Solubility: 40%
Partition coefficient: n-octanol/water: None established
Auto-ignition temperature: 465°C (869°F)
Decomposition temperature: None established
Viscosity: 85 Krebs units @ 20°C (68°F)

SECTION 10 – STABILITY AND REACTIVITY
Hazardous Polymerization: Not expected to occur.
Chemical stability: Stable.
Incompatibility: Strong oxidizers
Hazardous decomposition products: No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this SDS.
Conditions to avoid: Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.

SECTION 11 – TOXICOLOGICAL INFORMATION
The following information regarding health hazards is based upon third-party research studies.
Effects of Acute Exposure:
Inhalation: Inhalation of dust or mist can cause irritation of the eyes, nose, throat, and lungs.
Eye Contact: Like any foreign body, particles can cause mechanical irritation.
Skin Contact: This material can cause irritation if not promptly washed from the skin. This product is not expected to be absorbed through intact skin.
Ingestion: Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.
Effects of Chronic Exposure:

Titanium Dioxide:
- In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals, such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer.
- Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide.
- Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion).
- It has not been characterized as a potential carcinogen by either NTP or OSHA.

Di(2-ethylhexyl) phthalate:
- Possible cancer hazard.
- May cause cancer based on animal data.
- DEHP, di (2-ethylhexyl) phthalate, was administered to rats and mice in a lifetime bioassay sponsored by the U.S. National Toxicology Program (NTP). High feed concentrations (mice: 3000 and 6000 ppm; rats: 6000 and 12,000 ppm) were used because of the very low toxicity of di (2-ethylhexyl) phthalate. Liver tumors were produced at both dose levels in each species. Further studies have shown that the liver tumors probably arose from the ability of di (2-ethylhexyl) phthalate at high doses in rodents to perturb lipid metabolism, to proliferate peroxisomes, or to increase the rate of cell division. Since non-rodent species (including primates) have been shown to be very resistant to these effects, and since it is not genotoxic, DEHP probably presents a negligible carcinogenic risk to humans at exposure levels typical of occupational or consumer use.
- Oral doses of this material that were high enough to cause toxicity in pregnant animals also produced some minor abnormalities in their offspring. High oral doses of this material given to male animals produced reduced fertility. However, high doses to humans handling this material are not expected since oral consumption is not a likely route of significant exposure.
- This material does not evaporate readily and is not easily absorbed through human skin. It is not expected to produce such effects in humans through inhalation or skin exposure when handled in a manner consistent with the precautionary measures contained in this Safety Data Sheet.

### Numerical measures of toxicity:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>Oral LD50 (rat)</th>
<th>Dermal LD50 (rabbit)</th>
<th>Inhalation LC50 (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>5,800 mg/kg</td>
<td>20,000 mg/kg</td>
<td>&gt;20 mg/l (4 h)</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
<td>30,600 mg/kg</td>
<td>&gt;19,960 mg/kg</td>
<td>N/A</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>10,000 mg/kg</td>
<td>10,000 mg/kg</td>
<td>6.8 mg/l (4 h)</td>
</tr>
</tbody>
</table>

### SECTION 12 – ECOLOGICAL INFORMATION

Data from toxicity test (aquatic and/or terrestrial organism where available): 5 columns

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>Algae/Aquatic Plants (EC50)</th>
<th>Fish (LC50)</th>
<th>Toxicity to Microorganism</th>
<th>Crustacea (Aquatic Invertebrates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>16 mg/l t 72 h (Pseudokirchneriella subcapitata)</td>
<td>&gt;1000 mg/l t 96 h (Pimephales promelas (fathead minnow))</td>
<td>NOEC 28 d ≥100,000 mg/kg (Hyalella azteca)</td>
<td>LC50 100mg/l 48 h (daphnia magna)</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
<td>&gt;0.10 mg/l t 96 h (Selenastrum capricornutum)</td>
<td>&gt;0.67 mg/l t 96 h (fathead minnow)</td>
<td>N/A</td>
<td>&gt;0.16 mg/l t 96 h (Daphnid)</td>
</tr>
</tbody>
</table>

Ecotoxicity:
Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

Biodegradation: Inherently biodegradable in aerobic conditions.

Oxygen Demand:
- **Di(2-ethylhexyl) phthalate:**
  1. BOD-5: 40 mg/l
  2. ThBOD: 2,580 mg/l

**Partition Coefficient (log K<sub>ow</sub>):** >6 (based on similar materials)

Bioaccumulation potential: Data regarding copolymer of vinyl chloride and vinyl acetate show no adverse effects expected.

Photodegradation: Based on similar materials, this product will have little or no tendency to partition to air. Hydrocarbons from this product which do partition to air are expected to rapidly photodegrade.
Stability in Water: Not readily susceptible to hydrolysis under aquatic conditions.

Distribution: Principally to soil and sediment. Petroleum-based oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Other adverse effects: None known.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

Empty Container Precautions:
Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 14 – TRANSPORT INFORMATION

UN # | 1263
---|---
UN PROPER SHIPPING NAME: | Paint
HAZARD CLASS: | 3
PACKING GROUP: | II
ENVIRONMENTAL HAZARDS: | Not a marine pollutant
GUIDANCE ON TRANSPORT IN BULK | N/A
Transport labels required: | Flammable liquid

SECTION 15 – REGULATORY INFORMATION

US Federal Regulation:
SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CWA reportable quantities</th>
<th>CWA Toxic Pollutants</th>
<th>CWA Priority Pollutants</th>
<th>CWA Hazardous Substances</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/ SARA RQ</th>
<th>Reportable Quantity RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>1,000 lbs</td>
<td>Listed</td>
<td>N/A</td>
<td>Chronic Health Hazard</td>
<td>Acute</td>
<td>Required</td>
<td>1,000 lbs</td>
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</table>

SARA 313:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
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<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
<td>117-81-7</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
</tr>
</tbody>
</table>

US State Right to Know Regulations: New Jersey, Massachusetts, Pennsylvania, Rhode Island

<table>
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<td>Titanium Dioxide</td>
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</table>

CA Prop 65

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
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<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
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<tr>
<td>Vinyl Chloride</td>
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<td>Titanium Dioxide</td>
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<tr>
<td>DI-2-Ethylhexyl Phthalate</td>
<td>117-81-7</td>
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Canada

<table>
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<tr>
<th>CHEMICAL NAME</th>
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<tbody>
<tr>
<td>Di(2-ethylhexyl) phthalate</td>
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<tr>
<td>Acetone</td>
<td>67-64-1</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
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</table>
SECTION 16 – OTHER INFORMATION (HMIS RATING)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
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<tbody>
<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
<td>3</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Personal Protection</td>
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</tbody>
</table>

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