MATERIAL SAFETY DATA SHEET

H.C. Starck
A Bayer Company

TRANSPORTATION EMERGENCY
CALL CHEMTREC............ (800) 424-9300
INTERNATIONAL........... (703) 527-3387

NON-TRANSPORTATION
HCST EMERGENCY PHONE : (412) 923-1800
HCST INFORMATION PHONE: (617) 630-5800

Section 1: Product and Company Identification

Product Name: Baytron P VP AI 4083 PE FL 1KG
Material Number: 1016112
Product Code: V4070
Chemical Family: Aqueous mixture of a thiophene
Chemical Name: Mixture of water and 3,4-polyethylenedioxythiophene-
polystyrenesulfonate (cationic)

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

Ingredient Name/ CAS Number Exposure Limits Concentration
3,4-polyethylenedioxythiophene-
polystyrenesulfonate 155090-83-8
OSHA (PEL): Not Established 1% 5%
ACGIH (TLV): Not Established

Section 3: Hazard Identification

EMERGENCY OVERVIEW

CAUTION! Non-regulated. Color: Dark Blue Form: Liquid Odor: Nearly odorless
May cause respiratory tract irritation. Irritating gases/fumes may be given off during burning or thermal decomposition.

POTENTIAL HEALTH EFFECTS

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

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE
**General Effects of Exposure**

**Acute Effects of Exposure:**
Based on animal toxicity testing, this product is non-irritating to the eyes and skin. (See Section 11) Inhalation of vapor, spray or mist may cause irritation to the respiratory tract. Symptoms may include coughing, choking sensation, runny nose, sore throat, tightness in the chest and labored breathing.

**Chronic Effects of Exposure:**
No applicable information was found concerning any adverse chronic effects from overexposure to this product.

**Carcinogenic Components:**

- **NTP:** None
- **IARC:** None
- **OSHA:** None

**Medical Conditions Aggravated by Exposure:**
Persons with preexisting eye or skin conditions or impaired pulmonary function may be more susceptible to the effects of this product.

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### Section 4: First Aid Measures

**First Aid for Eye:**
In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops or persists.

**First Aid for Skin:**
Wash skin with soap and water. Get medical attention if irritation develops or persists. Wash clothing and shoes before reuse.

**First Aid for Inhalation:**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid for Ingestion:**
Call a physician immediately.

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### 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:** > 932 °F (> 500 °C)

**Extinguishing Media:**
- **Suitable:** Material is not combustible. Use extinguishing media suitable for other combustible materials in the area.

**Special Fire Fighting Procedures:**
Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
Section 6: Accidental Release Measures

Spill or Leak Procedures: Utilize recommended protective clothing and equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a suitable container. Spill area can be washed with water; Collect wash water for approved disposal.

Section 7: Handling and Storage

Storage Temperature:
Minimum: 50 °F (10 °C)
Maximum: 122 °F (50 °C)

Shelf Life: 6 Months

Special Sensitivity: None known.

Handling/Storage Precautions: Avoid breathing vapor, spray or mist. Avoid contact with eyes. Store away from alkalis, acids, food and beverages. Handle as any moderately strong acid would be handled. Protect from freezing.

Section 8: Exposure Controls/Personal Protection

Personal Protection Equipment
Eye Protection Requirements: Safety glasses or goggles.

Skin Protection Requirements: Permeation resistant gloves and clothing are recommended to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

Ventilation Requirements: Use local exhaust or other means to minimize worker exposure to airborne vapors.

Respirator Requirements: A NIOSH/MSHA approved respirator for organic vapors is recommended. Do not exceed the use limits of the respirator.

Additional Protective Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

Section 9: Physical and Chemical Properties

Physical Form: Liquid
Color: Dark Blue
Odor: Nearly odorless
pH: 1 - 2 @ 68 °F (20 °C)
**Boiling Point:** Approximately 212 °F (100 °C)
**Melting/Freezing Point:** Approximately 32 °F (0 °C)
**Viscosity:** Not Established
**Solubility in Water:** Miscible
**Specific Gravity:** Approximately 1 @ 68 °F (20 °C)
**Bulk Density:** Not Established
**Vapor Pressure:** Approximately 23 mbar @ 68 °F (20 °C)

**Section 10: Stability and Reactivity**

**Stability:** Under normal conditions of use and storage, the product is stable.

**Hazardous Polymerization:** Will not occur

**Substances to Avoid:** Avoid contact with acids and bases.

**Conditions to Avoid:** None known.

**Decomposition Temperature:** Not Established

**Decomposition Products:** Thermal decomposition may produce carbon monoxide, carbon dioxide, organic sulfur compounds, and other potentially toxic fumes.

**Section 11: Toxicological Information**

**Toxicity Data for Baytron P VP AI 4083 PE FL 1KG**

**Acute oral toxicity:** LD50 = > 2,000 mg/kg (Rat) Source: Tests performed on a similar product

**Eye Irritation:** Non-irritating (Rabbit) Source: Tests performed on a similar product

**Skin Irritation:** Non-irritating (Rabbit) Source: Tests performed on a similar product

**Sensitization:** No indication of a sensitizing effect (Magnusson Kligman) Source: Tests performed on a similar product

**Mutagenicity:** Ames test: negative Source: Tests performed on a similar product

**Toxicity Data for 3,4-polyethylenedioxythiophene-polystyrenesulfonate**

**Toxicity Note:** No data available for this component.

**Section 12: Ecological Information**

**Ecological Data for Baytron P VP Al 4083 PE FL 1KG**

**Fish Toxicity:** > 10,000 mg/L, Zebra fish (Brachydanio rerio) Source: Tests performed on a similar product
Inhibition Bacteria: EC50: > 10,000 mg/L, Activated sludge microorganisms. Source: Tests performed on a similar product.

Ecological Data for 3,4-polyethylenedioxythiophene-poly styrenesulfonate
Ecological Note: No data available for this component.

Section 13: Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental control regulations.

Section 14: Transportation Information

Technical shipping name: Aqueous Mixture containing 3,4-Polyethylenedioxy-thiophene-
Polystyrenesulfonate

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:
Radioactive?: Non-Radioactive

Section 15: Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Hazardous Rating:

TSCA Inventory List: On TSCA Inventory

CERCLA Hazardous Substance:
Component(s) None Reportable Quantity
SARA Title III
SARA Section 302 Extremely Hazardous Substances:

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>CAS Number</td>
<td>Min.</td>
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SARA Section 311/312 Hazard Categories:
Immediate Health Hazard

SARA Section 313 Toxic Chemicals:

<table>
<thead>
<tr>
<th>Components(s)</th>
<th>Reporting Threshold</th>
<th>Concentration</th>
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<td>CAS Number</td>
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<td>Min.</td>
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<tr>
<td>None</td>
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RCRA Status: When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (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)</th>
<th>State Code</th>
<th>Concentration</th>
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<tr>
<td>CAS Number</td>
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<td>Min.</td>
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<tr>
<td>Water</td>
<td>PA-N, NJ-N</td>
<td>95%</td>
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<td>7732-18-5</td>
<td>PA-N, NJ-N</td>
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<tr>
<td>3,4-polyethyleneoxythiophene-poly styrene sulfonate</td>
<td>PA-N, NJ-N</td>
<td>1%</td>
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<tr>
<td>155090-83-8</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

HMIS Rating

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

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

H.C. STARCK INC's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by H.C. STARCK INC as a customer service.

Contact: Ann Watt
Phone: (412) 777-7742
MSDS Number: R3410
Version Date: 06/06/2002

Material Name: Baytron P VP Al 4083 PE FL 1KG
Product Code: V4070
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