Section 1. Product and Company Identification

Product Name: API-8203AP
Chemical Name/Family: Maleic anhydride modified chlorinated polypropylene / xylene solution
CAS No.: Mixture
Product Use: Adhesion Promoter
Restrictions: For Industrial Use Only
Company: Advanced Polymer, Inc.
Address: 400 Paterson Plank Road Carlstadt, NJ 07072 U.S.A.
Telephone: 201-933-0600
Fax: 201-933-8442
24 Hour Emergency Number 800-424-9300
24 Hour Chemtrec Number 800-424-9300

Section 2. Hazards Identification

GHS Classification:

- Flammable liquids: Category 3
- Acute toxicity, oral: Category 5
- Acute toxicity, dermal: Category 4
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2A
- Acute toxicity, inhalation: vapour: Category 5
- Sensitization, skin: Category 1
- Specific target organ toxicity, single exposure (Central nervous system, Respiratory system, Kidneys, Liver): Category 1
- Specific target organ toxicity, repeated exposure (Central nervous system, Respiratory system): Category 1
- Carcinogenicity: Category 2
- Aspiration Hazard: Category 1
- Hazardous to the aquatic environment, acute toxicity: Category 2
- Hazardous to the aquatic environment, chronic toxicity: Category 2

GHS Label:

Symbol:

Signal Word: Danger

Hazard Classification:

Hazard Statement:
Precautionary Statement:

Prevention

- Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
- Keep container tightly closed.
- Ground/Bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting and other personal protective equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/eye protection/face protection.
- Wash uncovered body surfaces and hands thoroughly after handling.
- Do not breathe dust/fume/gas/mist/vapors/sprays.
- Contaminated work clothing should not be allowed out of the workplace.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Avoid release to the environment.
Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use alcohol resistance foam, carbon dioxide, dry-chemical extinguishing system and not water. Call a POISON CENTER/doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Specific measures (see Section 4 First Aid Measures on this SDS). Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. IF exposed or concerned: Call a POISON CENTER or doctor/physician. Get medical advice/attention if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Chlorinated Polypropylene with maleic anhydride</td>
<td>68609-36-9</td>
<td>57.0 – 58.0</td>
</tr>
<tr>
<td>[(4-(1,1-Dimethylethyl)phenoxy[methyl]oxirane</td>
<td>3101-60-8</td>
<td>&lt;3.0</td>
</tr>
<tr>
<td>(p-tert-butylphenyl glycidyl ether)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>42.0-43.0</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Skin Contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell.

Ingestion: Rinse mouth with water. Immediately call a POISON CENTER or doctor/physician.
Section 5. Firefighting Measures

Fire and Explosion Hazard: There is a risk of fire or explosion by contact with heat or flame. Avoid inhalation of material or combustion by-products (carbon monoxide and hydrogen chloride). Material is lighter than water and a fire may be spread by the use of water.

Fire Extinguishing Media: Regular dry chemical, carbon dioxide, or alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available

Specific Hazards in Case of Fire: Move container from fire area if it can be done without risk. Prohibited from entering into locations around the fires. Cool container with water spray.

Special Fire Fighting Information: Wear protective gloves, safety glasses, air-purifying respirators.

Section 6. Accidental Release Measures

Personal Precautions: Avoid breathing mist or vapours. Ensure adequate ventilation. Evacuate personnel to safe areas.

Protective Equipment: Use personal protective equipment (cartridge respirator, safety goggles, chemical resistant gloves).

Environmental Precautions: Remove all sources of ignition. Avoid discharging into the environment. Do not let enter drain.

Methods and Materials for Containment and Cleaning up: Collect liquid in an appropriate container or absorb with an inert material (e.g. sand, earth, vermiculite) and place in a chemical waste container.

Section 7. Handling and Storage

Handling Conditions: Avoid contact with skin and eyes or clothing. Avoid inhalation of vapours or mist. Use personal protective equipment (e.g. safety glasses, gas respirators, protective gloves). Wash thoroughly after handling. To keep out non-participants. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharge. *** Agitate contents of container before using ***

Storage Conditions: Good ventilation is needed at work area. Protect from sunlight. Store at temperatures between 40°F and 90°F. Combustible. Store in a well-ventilated place. Do not accumulate the vapour. (strong) oxidizing materials, strong acids.

Section 8. Exposure Control/Personal Protection

Exposure Limits: ACGIH: Xylene : 100ppm (TLV-TWA), 150ppm (TLV-STEL)

Appropriate engineering controls: General ventilation required.

Personal protective equipment:

Respiratory Protection: Chemical cartridge respirators.

Hand Protection: Chemical resistant gloves.

Eye Protection: Use safety glasses, coverall chemical goggles.

Skin and Body Protection: Wear appropriate chemical resistant clothing.

Other Protective Equipment: Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Hygiene Measures: Wash uncovered body surfaces and hands thoroughly after handling.
Section 9. Physical and Chemical Properties

- Physical State: Viscous liquid
- Color: Pale yellow to amber
- Odor: Aromatic
- Odor Threshold: No information available.
- pH: No information available.
- Specific Gravity (77°F): >1
- % Volatile by Weight: 43
- % Non-Volatile by Weight: 57
- % VOC: 43
- Melting Point: No information available.
- Freezing Point: No information available.
- Boiling point: Not available. Xylene: 280-291 ºF (138-144°C)
- Flash Point: No information available. Xylene: 21°C (Pensky Martens ASTM D93-13)
- Evaporation Rate (BuAc=1): No information available.
- Flammability: Not available. Xylene: 1.0% to 7.0% by volume
- Explosion Limits: No information available.
- Vapor Pressure (mmHg): Not available. Xylene: 7-9mmHg/68 ºF (20°C)
- Vapor Density (Air=1): Not available. Xylene: 3.7
- Density: Not available. Xylene: 0.88/68 ºF(20°C)
- Solubility: Insoluble in water
- n-Octanol/Water Partition Coefficient: No information available. Xylene: Log Pow=3.12
- Auto-ignition Temperature: No information available.
- Viscosity: No information available.
- Decomposition Temperature: No information available.

Section 10. Stability and Reactivity

- Chemical Stability: Stable at normal temperatures and pressure.
- Hazardous Polymerization: May not occur.
- Conditions to Avoid: Avoid heat, flames, sparks and other sources of ignition.
- Incompatible Materials: Strong oxidizing materials and acids.

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Primary Routes of Entry:</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin:</td>
<td></td>
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<tr>
<td>Inhalation:</td>
<td></td>
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<td></td>
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<tr>
<td>Ingestion:</td>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Health Effects:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation:</td>
<td>May be harmful if inhaled.</td>
</tr>
<tr>
<td>Ingestion:</td>
<td>May be harmful if swallowed and enters airways.</td>
</tr>
<tr>
<td>Skin:</td>
<td>Causes skin irritation.</td>
</tr>
</tbody>
</table>
**Eyes:**
Causes serious eye irritation

**Signs and Symptoms of Exposures:**

**Acute Toxicity:**
May be harmful if swallowed. May be harmful if inhaled.
Xylene: oral-rat LD50 3500~5011mg/kg
dermal-rabbit LD50 15400mg/kg
inhalation-rat(vapor) LD50 4000ppm(17.2mg/kg)~5300ppm/4H

**Chronic Toxicity:**
No information available.

**Respiratory Sensitization:**
No information available.

**Skin Sensitization:**
[(4-(1,1-Dimethylethyl)phenoxy)methyl]oxirane
(p-tert-butylphenyl glycidyl ether), CAS # 3101-60-8 :
May cause an allergic skin reaction.

**Mutagenicity:**
Classification not possible.

**Toxic to reproduction:**
Classification not possible.
Xylene : mouse developmental toxicity tests ; Based on the evidence of weight reduction and hydrocephalus at fetuses at dosing levels not toxic parent animals.

**Specific Target Organ Toxicity (Single Exposure):**
Causes damage to Central nervous system, Respiratory system, Kidneys, Liver
Xylene : Based on the human evidence including "throat irritation, severe pulmonary congestion, alveolar hemorrhage, pulmonary edema, congestion accompanying hepatomegaly, centrilobular vacuolation of hepatocytes, nerve cell damage associated with dot hemorrhage, swelling and disappearance of Nissl bodies, limb cyanosis, a transient increase in serum transaminase activity, an increase in the blood level of urea, a decrease in endogenous creatinine clearance in the urine, liver damage, severe kidney damage, amnesia, coma" and "pulmonary congestion, pulmonary edema, focal alveolar hemorrhage" and the evidence from animal studies including "strong narcotic effect.

**Specific Target Organ Toxicity (Repeated Exposure):**
Cause damage to respiratory system, nervous system through prolonged or repeated exposure.
Xylene : Based on the human evidence including eye/nose irritation, thirst and chronic headache, chest pain, abnormal electroencephalogram, dyspnea, cyanosis of the hands, fever, a decrease in WBC count, discomfort, impairment of pulmonary function, a decrease in working capacity, physical/mental disorders.

**Aspiration hazard**
May be harmful if swallowed and enters airways
Xylene: May fatal if swallowed and enter airways.

**Carcinogenicity:**
Suspected of causing cancer.

<table>
<thead>
<tr>
<th>IARC:</th>
<th>Xylene: Group 3</th>
<th>ACGIH</th>
<th>Xylene: A3</th>
<th>OSHA:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

**Section 12. Ecological Information**

**Ecotoxicity (Aquatic and Terrestrial):**
Toxic to aquatic life.
Xylene: Oncorhynchus mykiss LC50 3.3mg/L/96H
Daphnia magna EC50 2-12mg/L/48H

**Persistence / Degradability:**
Toxic to aquatic life with long lasting effects.
Bioaccumulative Potential

It is presumed that bioaccumulation is low.

Xylene: Log kow=3.16

Mobility in Soil:

No information available.

PBT and vPvB Assessment:

No information available.

Other Adverse Effects:

No information available.

Section 13. Disposal Considerations

Product:

Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of contents/container in accordance with local/regional/national/international regulation. Contact a licensed professional waste disposal service to this material. Do not dump this product into sewers, on the ground or into any body of water.

Disposing of Contaminated Packaging:

Dispose of as unused product.

Section 14. Transport Information

Land Transport (DOT):

UN Number: 1866
UN Proper Shipping Name: Resin solution
Transport Hazard Class: 3
Packing Group: III

Sea Transport (IMDG):

UN Number: 1866
UN Proper Shipping Name: Resin Solution
Transport Hazard Class: 3
Packing Group: III

Air Transport (IATA):

UN Number: 1866
UN Proper Shipping Name: Resin Solution
Transport Hazard Class: 3
Packing Group: III

Environmental Hazards (e.g., Marine pollutant): Yes

Section 15. Regulatory Information

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>Compound A</th>
<th>Xylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA (USA):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>DSL (Canada):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ENCS (Japan):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>REACH (Europe):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IECSC (China):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>KECL (Korea):</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>PICCS (Philippines):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>AICS (Australia):</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Xylene: 39% (BOD) There is no rapid degradation.
<table>
<thead>
<tr>
<th>Regulations / Components</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERMA (New Zealand):</td>
<td>No information available</td>
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<tr>
<td>SARA 313:</td>
<td>Xylene (CAS # 1330-20-7)</td>
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<tr>
<td>SARA 311/312:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Clean Water Act:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Clean Water Act:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Clean Air Act, Section 112 HAPs (See 40CFR61):</td>
<td>No information available.</td>
</tr>
<tr>
<td>State Regulations:</td>
<td></td>
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<tr>
<td>Massachusetts Right to Know Components:</td>
<td>No information available.</td>
</tr>
<tr>
<td>New Jersey Right to Know Components:</td>
<td>No information available.</td>
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<td>Pennsylvania Right to Know Components:</td>
<td>No information available.</td>
</tr>
<tr>
<td>California Proposition 65:</td>
<td>None</td>
</tr>
</tbody>
</table>

**Section 16. Other Information**

- **WHMIS Classification:** B2: Flammable liquid
  D2B: Toxic Material Causing Other Toxic Effects

- **HMIS Rating:**
  - Health Hazard: 2
  - Flammability: 3
  - Physical Hazard: 0
  - Personal Protection Equipment: X

- **NFPA Rating:**
  - Health Hazard: 2
  - Fire Hazard: 3
  - Reactivity Hazard: 0

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Date Prepared .................................. May 14, 2015
Prepared By .................................... Advanced Polymer, Inc.
Date Revised .................................... August 18, 2016
Revised By ...................................... Advanced Polymer, Inc.

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