American Polymer Standards Corporation

Safety Data Sheet

Conforms to US OSHA Hazardous Communication 29CFR1910.1200

Section 1: Identification

Product Name: Poly(2-Vinylpyridine)
Product Nos.: PVP
Supplier/Manufacture: American Polymer Standards Corporation, 8680 Tyler Blvd., Mentor, OH 44060
Phone: 440-255-2211 * Fax: 440-255-8397 * Email: apsc@ampolymer.com

In Case of Emergency: (440) 255-2211

Section 2: Hazardous Identification

Signal Word: Warning
GHS: H315 – Causes skin irritation (category 2); H319 – Causes serious eye irritation (category 2A); H335 – May cause respiratory irritation (category 3); P261 – Avoid breathing dust/fumes/gas/mist/vapors/spray; P264 – Wash skin thoroughly after handling; P271 – Use only outdoors or in a well-ventilated area; P280 – Wear protective gloves/eye protection/face protection; P302+P352 – IF ON SKIN: Wash with plenty of soap and water; P304+340 – IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing; P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing; P312 – Call a POISON CENTER or doctor/physician if you feel unwell; P337+P313 – If eye irritation persists: Get medical attention; P337+P313 – If skin irritation occurs: Get medical attention; P362 – Take off contaminated clothing and wash before reuse; P403+P233 – Store in a well-ventilated place. Keep container tightly closed: P405 – Store locked up or in a secure location; P501 – Dispose of contents/container to an approved waste disposal plant.

HMIS Classification:
- Health Hazard: 2
- Flammability: 0
- Physical Hazards: 0

NFPA Rating:
- Health Hazard: 2
- Fire: 0
- Reactivity Hazards: 0

Potential Health Effects:
- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Skin: May be harmful if absorbed through skin. May cause skin irritation.
- Eyes: May cause eye irritation.
- Ingestion: May be harmful if swallowed.

Section 3: Composition/Information on Ingredients

Substance/Mixture: Substance
Chemical Name: Poly(2-Vinylpyridine)
CAS No.: 25014-15-7
Synonyms: PVP

Section 4: First-Aid Measures

Description of Necessary First-Aid Measures
Inhalation: Move person to fresh air; if effects occur, consult a physician
Skin: Wash skin with plenty of water. Seek first-aid or medical attentions as needed. If molten material comes in contact with skin, do not apply ice but cool under ice water of running stream of eater. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately. Suitable emergency safety shower facility should be immediately available.
Eyes: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
Ingestion: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

Description of Symptoms/Effects (both acute and delayed) & Symptoms of Overexposure:
Inhalation: No known significant effects of critical hazards. No specific data regarding symptoms of overexposure.
Skin: No known significant effects of critical hazards. No specific data regarding symptoms of overexposure.
Eyes: No known significant effects of critical hazards. No specific data regarding symptoms of overexposure.
Ingestion: No known significant effects of critical hazards. No specific data regarding symptoms of overexposure.

Indication of Immediate Medical Attention & Special Treatment Needed, If Necessary:
Note to Physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific Treatments: No specific treatment
Protection of First-Aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### Section 5: Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Suitable Extinguishing Media</th>
<th>Use dry chemical powder, water spray (fog), foam or CO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable Extinguishing Media</td>
<td>Do not use water jet.</td>
</tr>
<tr>
<td>Specific Hazards Arising from the Chemical</td>
<td>None Known</td>
</tr>
<tr>
<td>Hazardous Thermal Decomposition Products</td>
<td>None Known</td>
</tr>
<tr>
<td>Special Protective Actions for Fire-Fighters</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</td>
</tr>
<tr>
<td>Special Protective Equipment for Fire-Fighters</td>
<td>Fire-Fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>

### Section 6: Accidental Release Measures

- **Personal Precautions, Protective Equipment & Emergency Procedures:**
  - Spilled material may cause a slipping hazard. Avoid dust formation. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8: Exposure Controls & Personal Protection.
- **Environmental Precautions:**
  - Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. For additional information, refer to Section 12: Ecological Information.
- **Methods & Materials for Containment & Clean Up:**
  - Contain spilled material if possible. Sweep up. Collect in suitable and properly labeled containers. For additional information, refer to Section 13: Disposal Considerations.

### Section 7: Handling & Storage

- **Precautions for Safe Handling:**
  - No smoking, open flames or sources of ignition in handling and storage areas. Wear appropriate personal protective equipment (refer to Section 8). Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid creation of dust. Ensure adequate ventilation.
- **Conditions for Safe Storage:**
  - Keep container tightly closed in a dry and well ventilated place.

### Section 8: Exposure Controls & Personal Protection

- **Exposure Limits:**
  - Contains no substances with occupational exposure limit values.
- **Engineering Controls:**
  - Safety shower and eye bath. Mechanical exhaust required.
- **Personal Protective Measures:**
  - **Respiratory:** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (SU) or CEN (EU).
  - **Hand:** Protective gloves
  - **Eye:** Chemical safety goggles
  - **Skin:** Personal protective equipment for the body should be selected based on the task being performed and the risk involved.
  - **Hygiene Measures:** Wash thoroughly after handling.
### Section 9: Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (Physical State &amp; Color)</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not Available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Lower &amp; Upper Flammability/Explosive Limits</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

### Section 10: Stability & Reactivity

**Reactivity:**
No specific test data related to reactivity available for this product or its ingredients.

**Chemical Stability:**
The product is stable.

**Possibility of Hazardous Reactions:**
Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to Avoid:**
None known

**Incompatible materials:**
None known

**Hazardous Decomposition Products:**
Strong oxidizing agents

### Section 11: Toxicology Information

**Acute Toxicity:**
- Oral LD50: No Data Available
- Inhalation LC50: No Data Available
- Dermal LD50: No Data Available

**Skin Corrosion/Irritation:**
Prolonged contact is essentially nonirritating to skin.
Repeated contact may cause flaking and softening of skin.

**Serious Eye Damage/Irritation:**
May cause slight temporary eye irritation. Corneal injury is unlikely.

**Respiratory or Skin Sensitization:**
No Data Available

**Germ Cell Mutagenicity:**
No Data Available

**Reproductive Toxicity:**
No Data Available

**Teratogenicity:**
No Data Available

**Specific Target Organ Toxicity-Single Exposure:**
Inhalation – May cause respiratory irritation

**Specific Target Organ Toxicity-Repeated Exposure:**
No Data Available

**Aspiration Hazard:**
No Data Available
Section 11: Toxicology Information (continued)

Carcinogenicity:
IARC: No component of this product, present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product, present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP: No component of this product, present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA: No component of this product, present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Potential Health Effects:
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.

Section 12: Ecological Information
Toxicity: No Data Available
Persistence & Degradability: No Data Available
Bio-accumulative Potential: No Data Available
Mobility in Soil: No Data Available

Section 13: Disposal Considerations
Disposal Methods: Disposal practices must be in compliance with all Federal, State and Local laws and regulations. DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. Contact a licensed professional waste disposal service to ensure proper disposal.

Section 14: Transport Information
DOT (US): Not Regulated
IMDG: Not Regulated
IATA: Not Regulated

Section 15: Regulatory Information
OSHA Hazards: No known hazards
SARA 302 Components: No chemical in this material are subject to reporting requirements of SARA Title III, Section 302.
SARA 311/312 Components: No SARA Hazards
SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Right to Know Components:
Massachusetts: No components of the material are subject to Massachusetts Right to Know Act.
New Jersey: Poly(2-Vinylpyridine) CAS # 25014-15-7
Pennsylvania: Poly(2-Vinylpyridine) CAS # 25014-15-7
California Prop 65: No components found.
Canada Inventory: This material is listed or exempted.

Section 16: Other Information
Date of Issue: April 29, 2014
Date of Last Revision/Review: April 24, 2017
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For R&D use only. Not for use in Food, Drugs or Cosmetics. The information contained in this MSDS is the most accurate and complete information available to us. APSC expresses or implies no warranty to the information provided and assumes no liability. The material covered in this MSDS is only provided in 250 milligram and 1 gram quantities and is not expected to pose any health or environmental risks based on these quantities.