Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: Methyl vinyl ether/maleic anhydride copolymer
Catalog Number(s): 173, 317, 318
Molecular Formula: \((C_4H_2O_3, C_3H_6O)\)_x
Company: Scientific Polymer Products, Inc.
6265 Dean Parkway
Ontario, NY 14519
Telephone: 585/265-0413
Fax: 585/265-1390
Website: www.scipoly.com
Emergency Phone Number: 800-255-3924 (CHEM TEL)

Section 2: Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Germ cell mutagenicity, Category 1B, H340
Carcinogenicity, Category 1A, H350
Specific target organ toxicity- repeated exposure, Category 1, H372

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H340 May cause genetic defects.
H350 May cause cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.
### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>&gt;=1.5&lt;-5</td>
</tr>
<tr>
<td>Methyl vinyl ether/maleic anhydride copolymer</td>
<td>9011-16-9</td>
<td>&gt;=90&lt;-100</td>
</tr>
</tbody>
</table>

### Section 4: First Aid Measures

**Description of first aid measures**

**General advice**
Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**
If breathed in, move person into fresh. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed**
No data available.

### Section 5: Fire-Fighting Measures

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture**
Carbon oxides

**Advice for firefighters**
Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**
No data available.

### Section 6: Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal according to local regulations (see section 13).

**Reference to other sections**
For disposal see section 13.
## Section 7: Handling and Storage

**Precautions for safe handling**
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

**Conditions for safe storage, including any incompatibilities**
Keep container tightly closed in a dry and well ventilated place.

**Specific end use(s)**
Laboratory chemicals, Synthesis of substances

## Section 8: Exposure Controls/Personal Protection

### Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Exposure Limit Values</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>TWA</td>
<td>0.5 ppm</td>
<td>US. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

**Remarks**
Leukemia
Substances for which there is a Biological Exposure Index or Indices
Confirmed human carcinogen
Danger of cutaneous absorption

<table>
<thead>
<tr>
<th>Value</th>
<th>Exposure Limit Values</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEL</td>
<td>2.5 ppm</td>
<td>US. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

Leukemia
Substances for which there is a Biological Exposure Index or Indices
Confirmed human carcinogen
Danger of cutaneous absorption

<table>
<thead>
<tr>
<th>Value</th>
<th>Exposure Limit Values</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>10 ppm</td>
<td>US. Occupational Exposure Limits (OSHA)-Table Z-2</td>
</tr>
<tr>
<td>Z37.40-1969</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEIL</td>
<td>25 ppm</td>
<td>US. Occupational Exposure Limits (OSHA)-Table Z-2</td>
</tr>
<tr>
<td>Z37.40-1969</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak</td>
<td>50 ppm</td>
<td>US. Occupational Exposure Limits (OSHA)-Table Z-2</td>
</tr>
<tr>
<td>Z37.40-1969</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See 1910.1028. See Table Z-2 for the limits applicable in the operations or sectors excluded in 1910.1028.
The final benzene standard in 1910.1028 applies to all occupational exposures to benzene except some subsegments of industry where exposures are consistently under the action level (i.e. distribution and sale of fuels, sealed containers and pipelines, coke production, oil and gas drilling and production, natural gas processing, and the percentage exclusion for liquid mixtures); for the excepted subsegments, the benzene limits in Table Z-2 apply.

<table>
<thead>
<tr>
<th>Value</th>
<th>Exposure Limit Values</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>0.1 ppm</td>
<td>USA. OSHA NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

Potential Occupational Carcinogen
See Appendix A

<table>
<thead>
<tr>
<th>Value</th>
<th>Exposure Limit Values</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST</td>
<td>1 ppm</td>
<td>USA. OSHA NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

Potential Occupational Carcinogen
See Appendix A
**Biological Limit Values**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Parameters</th>
<th>Value</th>
<th>Biological specimen</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>S-Phenylmercapturic acid</td>
<td>0.0300 mg/g</td>
<td>In urine</td>
<td>ACGIH- Biological Exposure Indices (BEI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>t,t-Muconic acid</td>
<td>0.500 mg/g</td>
<td>In urine</td>
<td>ACGIH- Biological Exposure Indices (BEI)</td>
</tr>
</tbody>
</table>

**Remarks**
End of shift (As soon as possible after exposure ceases)

**Exposure controls**

**Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

**Personal protective equipment**

**Eye/face protection**
Safety glasses with side shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air purifying respirators are appropriate use a full face respirator type N100(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage of spillage if safe to do so. Do not let product enter drains.

### Section 9: Physical and Chemical Properties

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>a) Appearance</th>
<th>Form: Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>b) Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>c) Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>j) Flammability or explosive limits</td>
<td>Upper No data available</td>
</tr>
<tr>
<td></td>
<td>Lower No data available</td>
</tr>
<tr>
<td>k) Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>l) Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>n) Water solubility</td>
<td>Soluble</td>
</tr>
</tbody>
</table>

Methyl vinyl ether/maleic anhydride copolymer
Section 10: Stability and Reactivity

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions - Carbon oxides
Other decomposition products - no data available
In the event of fire: see section 5

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity
No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 1 – Group 1: Carcinogenic to humans (Benzene)
NTP: Known to be human carcinogen (Benzene)
Methyl vinyl ether/maleic anhydride copolymer

OSHA: OSHA specifically regulated carcinogen (Benzene)

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available

Nausea, Dizziness, Headache, narcosis, Inhalation of high concentrations of benzene may have an initial stimulatory effect on the central nervous system characterized by exhilaration, nervous excitation and/or giddiness, depression, drowsiness, or fatigue. The victim may experience tightness in the chest, breathlessness, and loss of consciousness. Tremors, convulsions, and death due to respiratory paralysis or circulatory collapse can occur in a few minutes to several hours following severe exposures. Aspiration of small amounts of liquid immediately causes pulmonary edema and hemorrhage of pulmonary tissue. Direct skin contact may cause erythema. Repeated or prolonged skin contact may result in drying, scaling dermatitis, or development of secondary skin infections. The chief target organ is the hematopoietic system. Bleeding from the nose, gums, or mucous membranes and the development of purpuric spots, pancytopenia, leukopenia, thrombocytopenia, aplastic anemia, and leukemia may occur as the condition progresses. The bone marrow may appear normal, aplastic or hyperplastic, and may not correlate with peripheral blood-forming tissues. The onset of effects of prolonged benzene exposure may be delayed for many months or years after the actual exposure has ceased., Blood disorders

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Stomach – Irregularities – Based on Human Evidence
Stomach – Irregularities – Based on Human Evidence (Benzene)

Section 12: Ecological Information

Toxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects
No data available

Section 13: Disposal Considerations

Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Chemical waste generators must also consult local, regional and national hazardous waste regulations to ensure complete and accurate classification.
Contaminated packaging
Dispose of as unused product.

Section 14: Transport Information

**DOT (US)**
Not dangerous goods

**IMDG**
Not dangerous goods

**IATA**
Not dangerous goods

Section 15: Regulatory Information

**SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazards**
Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

<table>
<thead>
<tr>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
</tr>
</tbody>
</table>

**Pennsylvania Right To Know Components**

<table>
<thead>
<tr>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl vinyl ether/maleic anhydride copolymer</td>
</tr>
<tr>
<td>Benzene</td>
</tr>
</tbody>
</table>

**New Jersey Right To Know Components**

<table>
<thead>
<tr>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl vinyl ether/maleic anhydride copolymer</td>
</tr>
<tr>
<td>Benzene</td>
</tr>
</tbody>
</table>

**California Prop. 65 Components**
WARNING This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
</tr>
</tbody>
</table>

Section 16: Other Information

**HMIS Rating**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>2</td>
</tr>
</tbody>
</table>

**NFPA Rating**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>1</td>
</tr>
<tr>
<td>Flammability:</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

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