 Americas Styrenics LLC encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

**SECTION 1 : Product And Company Identification**

1.1. **Product Identifier**

Product Name : Polyethylbenzene Residue

Product Form : Liquid

1.2. **Relevant Use**

Recommended Use : A Chemical Intermediate

1.3. **Supplier Information**

Americas Styrenics LLC
Suite 1200
24 Waterway Avenue
The Woodlands, TX 77380
USA

Telephone: 844-512-1212

Email: productsteward@amsty.com

1.4. **Emergency Telephone**

Chemtrec® : 800-424-9300

Local Emergency Contact : 800-510-8510

**SECTION 2 : Hazard Identification**

2.1. **GHS Classification**

**GHS Classification**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Aspiration Hazard 2 : H304
Skin Irritation 2 : H315
Eye Irritation 2 : H319
STOT Single Exposure 2 : H371
STOT Repeat Exposure 2 : H373
Aquatic Acute 2 : H411

2.2. **GHS Label Elements**

**GHS-US Labelling**
Polyethylbenzene Residue
Safety Data Sheet

Hazard Pictograms (GHS-US)

Signal Words (GHS-US) : Danger

Hazard Statements (GHS-US)
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H371 - May cause damage to organs.
H373 - May cause damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US)
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/ eye protection/ face protection.
P260 - Do not breathe vapours.
P273 - Avoid release to the environment.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before reuse.
P314 - Get medical advice/ attention if you feel unwell.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P331 - Do NOT induce vomiting.
P314 - Collect spillage.
P405 -Store locked up.
P501 - Dispose of contents/ container to an approved waste disposal plant.

2.3. Other Hazards
Eye Contact : No Additional Information.
Skin Contact : Irritating to skin.
Inhalation : Harmful by inhalation.
Ingestion : May be fatal if swallowed and enters airways. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

2.4. Additional Physical Information
Not Available

SECTION 3 : Composition / Information On Ingredients

3.1. Substance
Not Applicable
Polyethylbenzene Residue
Safety Data Sheet

3.2. Mixture

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<td>Eye Irritation 2 H319</td>
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<td>STOT Single Exposure 2 H371</td>
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<td>STOT Repeat Exposure 2 H373</td>
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<td>Aquatic Acute 2 H411</td>
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<tr>
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<td>&lt; 5</td>
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</tr>
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Section 4: First Aid Measures

4.1. Description of Preventative and First Aid Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact: After contact with skin, wash immediately with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation: IF INHALED: Remove Person to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

Ingestion: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get immediate medical advice/attention.

4.2. Important Symptoms and Effects

Eye Contact: Causes eye irritation.

Skin Contact: Irritating to eyes.

Inhalation: Harmful by inhalation.

Ingestion: May be fatal if swallowed and enters airways. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

4.3. Immediate Medical Attention and Special Treatment

Not Available

Section 5: Fire-Fighting Measures

5.1. Extinguishing Media

Unsuitable Extinguishing Media: Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

5.2. Specific Hazards

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon dioxide. Carbon monoxide.

5.3. Advice for Firefighters

Special Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.

Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire & Explosion Hazards: No Additional Information.

Section 6: Accidental Release Measures

6.1. Personal Precautions and Emergency Procedures

General Measures: Keep upwind. Keep out of low areas. Avoid inhalation of vapour and spray mist. Use ventilation/water spray/fog to disperse vapours. Avoid static electricity discharges. Ground/bond container and receiving equipment. Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking. Flammable mixtures may exist within the vapor space of containers at room temperature. At or above flash point, vapours present may burn in open or explode if confined when mixed with air and exposed to ignition source.

6.1.1 For Non-Emergency Personnel

Emergency Procedures: Do not breathe mist. Do not breathe vapors. Eliminate all ignition sources if safe to do so. In case of fire: Evacuate area. Avoid contact with skin and eyes.

6.1.2 For Emergency Responders

Protective Equipment: Wear suitable protective clothing, gloves and eye/face protection. In case of insufficient ventilation, wear suitable respiratory equipment.

Emergency Procedures: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
# Polyethylbenzene Residue
## Safety Data Sheet

### Section 6: Environmental Precautions

**Not Available**

### Section 6.3: Methods for Clean Up

**Spill Cleanup Methods**: Contain spilled material if possible. Pump with explosion-proof equipment. If available, use foam to smother or suppress. Collect in suitable and properly labeled containers.

### Section 6.4: Reference to Other Sections

Refer to Section 8, Exposure Controls.
Refer to Section 12, Ecological Information
Refer to Section 13, Disposal Considerations.

### Section 7: Handling and Storage

#### 7.1: Precautions for Safe Handling

**Precautions for Safe Handling**: Avoid breathing dust/fume/vapors. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Never use air pressure for transferring product. Use only in well-ventilated areas. Ground/bond container and receiving equipment. Keep away from heat.

**Hygiene Measures**: Refer to Section 8, Exposure Controls.

#### 7.2: Conditions for Safe Storage

**Technical Measures**: Ground/bond container and receiving equipment.

**Storage Conditions**: Store in a well-ventilated place. Store in a dry place. Store in accordance with good manufacturing practices (GMP)

**Incompatible Materials**: Self-reactive substances and mixtures

**Storage Area**: Not Available

**Special Packaging Rules**: Store with proper labeling.

### Section 8: Exposure Controls

#### 8.1: Control Parameters

None Established

#### 8.2: Exposure Controls

**Appropriate Engineering Controls**: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid all unnecessary exposure.
Personal Protective Equipment (PPE): Recommended PPE includes: Face Shields, Protective Clothing, Protective Glasses, Gloves.

Hand Protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye Protection: If exposure causes eye discomfort, use a full-face respirator. Use chemical goggles.

Skin Protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental Exposure Controls: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Other Information: Wash hands before smoking or eating. Do not eat, drink or smoke when using this product.

Section 9: Physical and Chemical Properties

9.1. Physical and Chemical Properties

Physical State: Liquid
Color: Brown to black
Odor: Characteristic
Odor Threshold: No test data available
pH: Not applicable
Freezing Point: -32 °C
Melting Point: -32 °C
## Polyethylbenzene Residue

**Safety Data Sheet**

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<th>Value</th>
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</thead>
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<td>Evaporation Rate</td>
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<tr>
<td>Flammability Limit - Upper (%)</td>
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<tr>
<td>Flammability Limit - Lower (%)</td>
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<tr>
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<tr>
<td>Relative Density (H2O=1)</td>
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<tr>
<td>Solubility in Water</td>
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<tr>
<td>Henry's Law Constant (H)</td>
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</table>

### Section 10: Stability and Reactivity

**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2. Stability**

Stable under recommended storage conditions. See Storage, Section 7.

**10.3. Possibility of Hazardous Reactions**

Hazardous polymerization will not occur.

**10.4. Conditions to Avoid**

Avoid temperatures above 30°C (86°F) Exposure to elevated temperatures can cause product to decompose. Avoid static discharge. Do not blanket or purge with an inert gas to avoid depleting the oxygen concentration. Avoid direct sunlight. Avoid contact with oxidizing materials. Avoid contact with: Acids. Caustic potash. Caustic soda. Metal halides. Avoid contact with absorbent materials such as; Cellulose. Clay-based absorbents. Sawdust. Avoid unintended contact with peroxides.

**10.5. Incompatible Materials**

### 10.6. Hazardous Decomposition Products

Decomposition products depend upon temperature, air supply and the presence of other materials.

### Section 11: Toxicological Information

#### 11.1. Information on Toxicological Effects

**Acute Toxicity**

- **Ingestion**: LD50rat > 5 g/kg
- **Skin**: NOAE Lalrat 2,000 mg/kg
- **Inhalation**: The LC50 has not been determined.

**Serious Eye Damage/Eye Irritation**

May cause moderate eye irritation. May cause moderate corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness. Vapor may cause lacrimation (tears).

**Skin Corrosion/Irritation**

Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. May cause drying and flaking of the skin.

**Repeated Dose Toxicity**

No Additional Information.

**Chronic Toxicity**

**Carcinogenicity**

No Additional Information.

**Developmental Toxicity**

No Additional Information.

**Reproductive Toxicity**

In animal studies, did not interfere with reproduction.

**Target Organ Toxicity**

- **Specific Target Organ Toxicity (Single Exposure)**: In animals, effects have been reported on the following organs: Central nervous system, Kidney, and Liver.
- **Specific Target Organ Toxicity (Repeated Exposure)**: In animals, effects have been reported on the following organs: Central nervous system, Kidney, and Liver.
Aspiration Hazard : May be fatal if swallowed and enters airways.

Potential Adverse Human Health Effects : No Additional Information.

Symptoms/Injuries After Inhalation : No Additional Information.

Symptoms/Injuries After Skin Contact : No Additional Information.

Symptoms/Injuries After Eye Contact : No Additional Information.

Symptoms/Injuries After Ingestion : No Additional Information.

Section 12 : Ecological Information

12.1. Toxicity

Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

Aquatic Plant Toxicity

EC50, green algae (selenastrum capricornutum), 96 h, 18 mg/l
EC50, water flea (Daphnia magna), 48 h, 1.7 mg/l
LC50, rainbow trout (Oncorhynchus mykiss), 96 h, 6.5 mg/l

12.2. Persistence and Degradability

No appreciable biodegradation is expected.

12.3. Bioaccumulative Potential

No Additional Information.

12.4. Mobility

Henry's Law Constant (H): No Additional Information.

12.5. Other Adverse Effects

No Additional Information.

Section 13 : Disposal Considerations

Sewage Disposal Recommendation : Do not empty into drains. Do not dump into sewers, on the ground, or into any body of water.

Waste Disposal Recommendation : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Additional Information : Contaminated product, soil, container residue, and spill clean-up materials may be considered hazardous material.

Ecology - waste materials : No Additional Information.
### Section 14: Transportation Information

#### 14.1. UN Number

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<tr>
<td>IATA</td>
<td>3082</td>
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#### 14.2. Proper Shipping Name

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<tr>
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#### 14.3. Additional Information

**CFR**

- Class: 9
- Packing Group: III
- Labels: 9
- EMR No.: 171
- Environmentally Hazardous: Yes (Triethylbenzene)

**IMDG**

- Class: 9
- Packing Group: III
- Labels: 9
- EMR No.: F-A
- EMR No.: S-F
- Marine Pollutant: Yes (Triethylbenzene)

**IATA_C**

- Class: 9
- Packing Group: III
- Labels: 9
Polyethylbenzene Residue
Safety Data Sheet

Packing Instruction (Cargo Aircraft) : 964
Environmentally Hazardous : No

Section 15 : Regulatory Information

15.1. US Federal Regulations

OSHA Hazard Communication Standard
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Immediate (Acute) Health Hazard : Yes
Delayed (Chronic) Health Hazard : Yes
Fire Hazard : No
Reactive Hazard : No
Sudden Release of Pressure Hazard : No

15.2. International Regulations

Notification Status
Toxic Substances Control Act (TSCA) : All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30
CEPA - Domestic Substances List (DSL) : All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

15.3. US State Regulations

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:
The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

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<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Diphenylmethane</td>
<td>101-81-5</td>
<td>&lt; 5 %</td>
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</table>

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this

Section 16 : Other Information
### Product Literature
Additional information on this product may be obtained by calling your sales or customer service contact.

### Recommended Uses and Restrictions
Not Available

### Revision
06/22/2015
1.1
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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### Action Level
A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

*Americas Styrenics LLC urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.*