SECTION 1. PRODUCT & COMPANY INFORMATION

Product Name: FTR-601A Adhesive, Part A

Recommended Use: Foamable adhesive

Manufacturer: SEAMAN CORPORATION
1000 Venture Blvd.
Wooster, OH 44691 USA
PHONE: (330) 262-1111
INTERNET: www.seamancorp.com
24-HR EMERGENCY: (800) 424-9300 (Chemtrec)

SECTION 2. HAZARDS IDENTIFICATION

Pictograms:

Signal Word: DANGER

GHS Classification:
- Acute Toxicity - Inhalation - Category 4
- Skin Irritation – Category 2
- Eye Irritation – Category 2A
- Respiratory Sensitization - Category 1
- Skin Sensitization - Category 1
- Carcinogenicity - Category 2
- Specific Target Organ Toxicity (Single Exposure) – Category 3 (Respiratory irritation)
- Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Hazard Statements:
- Harmful if inhaled
- Causes skin irritation
- Causes serious eye irritation
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May cause an allergic skin reaction
- Suspected of causing cancer
- May cause respiratory irritation
- May cause damage to organs (respiratory system, eyes, skin) through prolonged or repeated exposure

Precautionary Statements:
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash face, hands and any exposed skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Take off contaminated clothing and wash before reuse.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:
Dispose of contents/container in accordance with local/regional/national regulations

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymethylene polyphenyl isocyanate</td>
<td>9016-87-9</td>
<td>30-60</td>
</tr>
<tr>
<td>Methylene bisphenyl diisocyanate</td>
<td>101-68-8</td>
<td>20-40</td>
</tr>
<tr>
<td>Methylene diphenyl diisocyanate</td>
<td>26447-40-5</td>
<td>0-15</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

Inhalation: Move to fresh air. Seek medical attention if symptoms persist.
Skin Contact: Wash exposed skin with soap and water. Do not use solvents or thinners. If irritation develops or persists, seek medical attention.
Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention.
Ingestion: Rinse mouth thoroughly with water. Seek medical attention. Do not induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

Flammable Properties: No unusual fire or explosion hazards
Suitable Extinguishing Media: alcohol resistant foam, CO2, powders, water spray
Products of Combustion: Carbon oxides, nitrogen oxides, hydrocarbons, cyanide compounds
Protection of Firefighters: Firefighters should wear self-contained breathing apparatus and full fire-fighting turnout gear. No special procedures are expected to be necessary for this product.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8.
Environmental Precautions: No special procedures necessary
Methods for Containment: No special procedures necessary
Methods for Clean-up: No special procedures necessary
SECTION 7. HANDLING AND STORAGE

Handling: Use protective equipment recommended in Section 8. Use only in well-ventilated area. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid contact with water or moisture.

Storage: Keep container tightly closed and in a well-ventilated area. Storage temperature 65°F to 85°F (18°C to 30°C). Store away from incompatible materials (see Section 10). Do not reseal contaminated product as a hazardous build-up of pressure may result from liberation of CO2 gas.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA (PEL)</th>
<th>ACGIH (TLV)</th>
<th>NIOSH (REL)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene bisphenyl isocyanate (101-68-8) (MDI)</td>
<td>0.02 ppm (0.2 mg/m³) CEILING</td>
<td>0.005 ppm (0.051 mg/m³) TWA; 0.02 ppm (0.2 mg/m³) CEILING</td>
<td>0.005 ppm (0.05 mg/m³) TWA; 0.02 ppm (0.2 mg/m³) C (10 min)</td>
<td></td>
</tr>
<tr>
<td>Polymethylene polyphenyl isocyanate (9016-87-9)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>None established</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls: Provide local exhaust ventilation
Eye/Face: Wear safety glasses
Skin: Wear chemical resistant protective gloves
Respiratory: If exposure limits are exceeded, NIOSH approved respiratory protection must be provided
General Hygiene: Wash hands with soap and water after handling material.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Tan viscous liquid |
| Odor threshold: | Not available |
| Melting/Freezing Point: | Not available |
| Flash Point: | >176.7°C (350°F) |
| Flammability: | na |
| Vapor Pressure: | Not determined |
| Relative Density: | 1.12 |
| Partition Coefficient Kow: | Not available |
| Decomposition Temp.: | Not applicable |
| Odor: | Faint aromatic |
| pH: | Not available |
| Boiling Point: | Not available |
| Evaporation Rate: | Not available |
| LFL/UFL: | Not available |
| Vapor Density: | Not available |
| Solubility: | Reacts with water |
| Auto-Ignition Temp.: | Not available |
| Viscosity: | 3200-11000 cP @75°F |

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at recommended storage and handling conditions
Conditions to Avoid: Elevated temperatures, moisture
Incompatible Materials: Strong oxidizing agents, strong acids, strong bases, alcohols, amines, water, brass, copper, tin, zinc, aluminum, galvanized metals
Hazardous Decomposition: Carbon oxides, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, hydrocarbons
Hazardous Reactions: Reacts with water and emits carbon dioxide gas.
SECTION 11. TOXICOLOGY INFORMATION

POTENTIAL HEALTH EFFECTS:

Summary: Causes skin, eye and respiratory tract irritation. May cause allergic respiratory and skin reactions. May polymerize.

Inhalation: Causes respiratory tract irritation. May cause allergic respiratory reaction.

Skin Contact: Causes skin irritation. May cause allergic skin reaction.

Eye Contact: Causes eye irritation.

Ingestion: Ingestion may cause vomiting, nausea, diarrhea, or other systemic effects.

Target Organs: Respiratory system, eyes, skin, lungs

ACUTE TOXICITY

General Information: May cause allergic respiratory and skin reactions. May cause discomfort if swallowed. May cause skin and eye irritation.

Component Analysis:
- Methylene bisphenyl isocyanate (101-68-8):
  - Inhalation LC50 (rat): 0.369 mg/L (4-hr dose)
- Polymethylene polyphenyl isocyanate (9016-87-9):
  - Inhalation LC50 (rat): 0.369 mg/L (4-hr dose)

CARCINOGENICITY

General Information: This product is not classified as a carcinogen or potential carcinogen by OSHA, NTP, ACGIH, or IARC. No specific data available.

Component Analysis:
- Methylene bisphenyl isocyanate (101-68-8):
  - IARC: 3 – Unclassifiable as to Carcinogenicity in Humans
- Polymethylene polyphenyl isocyanate (9016-87-9):
  - IARC: 3 – Unclassifiable as to Carcinogenicity in Humans

CHRONIC TOXICITY

No data is available on mutagenicity, reproductive effects, or developmental effects.

SECTION 12. ECOLOGICAL INFORMATION

This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Do not empty into drains or waterways.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with Federal, State, and local environmental control regulations. This material may be classified as hazardous under the Resource Conservation and Recovery Act. (40 CFR 261)

SECTION 14. TRANSPORTATION INFORMATION

This product is not hazardous for transportation.

SECTION 15. REGULATORY INFORMATION

SARA Title III:
- Health: Acute YES Chronic YES EHS NO
- Physical: Fire NO Reactivity YES Pressure NO

SARA 313 (TRI):
This product contains the following chemicals subject to reporting under Superfund Amendments Reauthorization Act, Title III, Section 313 (Toxic Release Inventory):
Component | % by weight
--- | ---
Polymethylene polyphenyl isocyanate | 30-60
Methylene bisphenyl diisocyanate | 20-40
(see also Group N120 Diisocyanates)

California Proposition 65: **WARNING:** This material contains chemicals known to the State of California to cause cancer.

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**SECTION 16. OTHER INFORMATION**

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. No warranty of merchantability or any other warranty, expressed or implied, is given. In no case shall the information provided herein be considered a part of the terms and conditions of sale. Seaman Corporation assumes no obligation or liability for the information given or results obtained. All materials may present unknown hazards and should be used with caution. Final determination of suitability of any material is the sole responsibility of the user.

For questions related to the safety of this product, e-mail msds@seamancorp.com or call (330) 262-1111

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