SAFETY DATA SHEET

FiberTite® FTR-190e Adhesive

SECTION 1. PRODUCT & COMPANY INFORMATION

Product Name: FTR-190e Roofing Adhesive

Recommended Use: Roofing adhesive (Low VOC)

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:
- Flammable Liquid – Category 2
- Eye Irritant – Category 2A
- Skin Irritant – Category 2
- Reproductive Toxicant – Category 2
- Aspiration Hazard – Category 1
- Specific Target Organ Toxicity (Single Exposure) – Category 3
- Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Hazard Statements:
- Highly flammable liquid and vapor
- May be fatal if swallowed and enters airways
- Causes skin irritation
- Causes serious eye irritation
- May cause respiratory irritation
- May cause drowsiness or dizziness
- Suspected of damaging fertility or the unborn child
- May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure

Precautionary Statements:
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe vapor.
Wash face, hands and any exposed skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.

Response:
IN CASE OF FIRE: Use foam/CO2/powder/water spray for extinction.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
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>Acetone</td>
<td>67-64-1</td>
<td>55-75</td>
</tr>
<tr>
<td>Nitrile Rubber/polymeric blend</td>
<td>n/a</td>
<td>25-40</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>78-93-3</td>
<td>3-10</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>1-5</td>
</tr>
<tr>
<td>p-Chlorobenzotrifluoride</td>
<td>98-56-6</td>
<td>&lt;1</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: Seek medical attention. Do not induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

Flammable Properties: Material is highly flammable. Likely to catch fire from nearby spark. Static charge may accumulate.

Suitable Extinguishing Media: alcohol resistant foam, CO2, powders, water spray

Products of Combustion: Fire will produce dense black smoke. Carbon monoxide and carbon dioxide may be produced from decomposition.
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. Eliminate any source of ignition. Ground and bond all equipment when handling. Any electrical equipment used around vapors should meet the applicable requirements of the local electrical code. Wash hands after contact.

Storage: Storage temperature 60°F to 95°F (15°C to 35°C). Shelf life one year from manufacture date. Keep away from oxidizing agents and strongly acid or strongly alkaline materials. Avoid heating or direct sunlight. Material will evaporate quickly.

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>Acetone (67-64-1)</td>
<td>1000 ppm (2400 mg/m³) TWA</td>
<td>500 ppm (1187 mg/m³) TWA; 750 ppm (1780 mg/m³) STEL</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Methyl Ethyl Ketone (78-93-3)</td>
<td>200 ppm (590 mg/m³) TWA</td>
<td>200 ppm (590 mg/m³) TWA; 300 ppm (885 mg/m³) STEL</td>
<td>200 ppm (590 mg/m³) TWA; 300 ppm (885 mg/m³) STEL</td>
<td></td>
</tr>
<tr>
<td>Toluene (108-88-3)</td>
<td>200 ppm (590 mg/m³) TWA; 300 ppm STEL</td>
<td>20 ppm TWA</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>p-Chlorobenzotrifluoride (98-56-6)</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light amber liquid</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>-95°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-17°C (1.4°F)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Category 2</td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent (ketone)</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>56°C (133°F)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&gt;1.0 (butyl acetate=1)</td>
</tr>
<tr>
<td>LFL/UFL</td>
<td>1.0% / 12.8%</td>
</tr>
</tbody>
</table>
Vapor Pressure: Not determined  
Vapor Density: Greater than air  
Relative Density: 0.849 (7.081 lb/gal)  
Partition Coefficient $K_{ow}$: Not available  
Solubility: Slight in water  
Auto-Ignition Temp.: 404°C (759°F)  
Decomposition Temp.: Not applicable  
Viscosity: Not available  

VOC Content: 199.4 g/L (EPA Method 24)  
Photochemically reactive VOC: 53 g/L

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at recommended storage and handling conditions  
Conditions to Avoid: Sources of ignition  
Incompatible Materials: Oxidizing agents, strong acids, strong bases  
Hazardous Decomposition: Carbon monoxide, carbon dioxide  
Hazardous Reactions: Will not occur

SECTION 11. TOXICOLOGY INFORMATION

POTENTIAL HEALTH EFFECTS:

Summary: Material is flammable, irritating to eyes and skin, can cause dizziness/drowsiness  
Inhalation: May cause dizziness and/or drowsiness, headaches, and irritation of the lungs  
Skin Contact: Drying of skin and dermatitis may occur  
Eye Contact: May cause irritation, redness, and burning; vapors may also cause irritation  
Ingestion: Irritation of gastrointestinal tract, large quantities may have toxic effects  
Target Organs: Central nervous system, skin, eyes, liver, kidneys

ACUTE TOXICITY

General Information: In high concentration the material is irritating to the mucous membranes, can induce a narcotic effect, and cause loss of coordination and reaction.  
Component Analysis:

Acetone (67-64-1):  
Oral LD50 Rat: >5000 mg/kg  
Dermal LD50 Rabbit: >15700 mg/kg  
Inhalation (rat): 32000 mg/m³ (4-hr dose)  

Methyl Ethyl Ketone (78-93-3):  
Oral LD50 Rat: >2737 mg/kg  
Dermal LD50 Rabbit: 5000 to 13000 mg/kg  
Inhalation (rat): 23500 mg/L (8-hr dose)  

Toluene (108-88-3):  
Oral LD50 Rat: 636 mg/kg  
Dermal LD50 Rabbit: 14100 mg/kg  
Inhalation (mouse): 440 mg/L (24-hr dose)  

p-Chlorobenzotrifluoride (98-56-6):  
Oral LD50 Rat: >6800 mg/kg  
Dermal LD50 Rabbit: >2700 mg/kg  
Inhalation (rat): 4479 ppm

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:  
Toluene (108-88-3):  
IARC: 3 – Unclassifiable as to Carcinogenicity in Humans  
ACGIH: A4 – Not classifiable as a Human Carcinogen

CHRONIC TOXICITY

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

SECTION 12. ECOLOGICAL INFORMATION
This product contains components that will normally float on water. These components may be harmful to aquatic organisms and may cause long term effects in the aquatic 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 hazardous for transportation.

Shipping Name: Adhesives (contains toluene, acetone)

Class: 3 Packing Group: II ID No.: NA1133 NAERG: 128

SECTION 15. REGULATORY INFORMATION

SARA Title III: Health: Acute YES Chronic YES EHS NO
Physical: Fire YES Reactivity NO 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
Toluene (CAS# 108-88-3) 1-5%

California Proposition 65: WARNING: This material contains a chemical known to the State of California to cause birth defects or other reproductive harm: Toluene (CAS# 108-88-3)

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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