



# Material Safety Data Sheet

## SHELTER-RITE® Architectural Fabrics

Issue Date: 19 Oct 2010

### SECTION 1. PRODUCT & COMPANY INFORMATION

**Product Name:** SHELTER-RITE® Architectural Fabrics

**Product Code(s):** 8028 FRLTC, 9032 FRLTC, 9319 FRLTC, 8424 FRLTC, 5818 FRLTC

**CAS Number:** Not Applicable

**Synonyms:** Vinyl fabric, structure fabric

**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

#### EMERGENCY OVERVIEW:

Appearance and odor: Rolled PVC coated fabric sheeting of various sizes and thickness. Slight characteristic or solvent odor.

Under normal use and handling, the product is not expected to create any physical or health hazards.

Excessive heating may result in the generation of smoke or fumes containing hydrogen chloride, carbon dioxide, carbon monoxide, and trace amounts of organic compounds due to decomposition of the PVC.

#### POTENTIAL HEALTH EFFECTS:

**Summary:** Smoke generated from heating or burning the product is the primary health effect.

**Inhalation:** Irritation of the upper respiratory tract may occur from fumes and smoke generated during heating

**Skin Contact:** Drying of skin and dermatitis may occur from prolonged exposure to fumes and smoke generated during heating, prolonged handling may cause mechanical irritation

**Eye Contact:** Fumes from heating may cause irritation, redness, and burning

**Ingestion:** Not an expected route of entry

**Target Organs:** Lungs/respiratory tract, skin, eyes

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling of this product in fabrication processes. This MSDS should be retained and available for employees and other users of this product.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Due to the product form, all chemical components are bound within the coating matrix. Exposure to individual components is not expected under normal conditions of use. This material is defined as an "article" under the OSHA Hazard Communication Standard (29 CFR 1910.1200) with respect to chemical components. Listing of major components and exposure limits are given for reference only.

**CAS No.**

**Major Components**

Polyester fabric	Not applicable
PVC Resin	9002-86-2
Phthalate plasticizer	Trade secret
Ethene, 1,1,-difluoro-, homopolymer (Kynar® coated products only)	24937-79-9

**Other Regulated Components**

Folpet	133-07-3
Antimony Trioxide	1309-64-4

None of the components in this mixture are expected to be biologically available under normal conditions of use, including use in heat welding processes.

Processing of the material at excessive temperatures may result in the generation of smoke or fumes containing hydrogen chloride (CAS# 7647-01-0), carbon monoxide (CAS# 630-08-0), and carbon dioxide.

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**SECTION 4. FIRST AID MEASURES**

<b>Inhalation:</b>	If exposed to fumes from overheating or combustion, move to fresh air. Seek medical attention if symptoms persist.
<b>Skin Contact:</b>	Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.
<b>Eye Contact:</b>	Flush eyes with plenty of water for at least 15 minutes. Seek medical attention.
<b>Ingestion:</b>	Not applicable

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**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash Point:</b>	Not applicable	<b>Flammability:</b>	Not determined
<b>Upper Flammability Limit:</b>	Not applicable	<b>Lower Flammability Limit:</b>	Not applicable
<b>Flammable Properties:</b>	Material will burn if exposed to an external combustion source and yield hydrogen chloride, carbon monoxide, carbon dioxide, and small amounts of aliphatic and aromatic hydrocarbons.		
<b>Suitable Extinguishing Media:</b>	Water fog, CO <sub>2</sub> , foam or dry chemical (CAUTION: CO <sub>2</sub> will displace air in confined spaces and may cause an oxygen deficient atmosphere.)		
<b>Products of Combustion:</b>	Hydrogen chloride, carbon dioxide, carbon monoxide, trace amounts of aliphatic and aromatic organics		
<b>Protection of Firefighters:</b>	Firefighters should wear self-contained breathing apparatus and full fire-fighting turnout gear. No special procedures are expected to be necessary for this product.		

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions:</b>	Use personal protection recommended in Section 8.
<b>Environmental Precautions:</b>	No special procedures necessary
<b>Methods for Containment:</b>	No special procedures necessary
<b>Methods for Clean-up:</b>	No special procedures necessary

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## SECTION 7. HANDLING AND STORAGE

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**Handling:** Use protective equipment recommended in Section 8. Wash hands after repeated handling. When hot air or wedge welding, insure adequate local ventilation to prevent the buildup of fumes.

Unwinding, winding, and passage of the fabric through and over rollers can generate a strong electrostatic charge on the surface of the fabric. Static discharge devices should be used when handling in this way.

**Storage:** Rolled goods should be kept dry and protected from moisture.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### EXPOSURE GUIDELINES

Polyester fabric: None established  
PVC Resin (9002-86-2): None established  
Phthalate plasticizer: None established for the plasticizers used in this product  
Folpet (133-07-3): None established  
Antimony Trioxide (1309-64-4):  
ACGIH: 0.5 mg/m<sup>3</sup> TWA as Sb  
OSHA: 0.5 mg/m<sup>3</sup> TWA as Sb  
NIOSH: 0.5 mg/m<sup>3</sup> TWA as Sb

NOTE: Due to product form, exposure to dust or fume is not expected to occur; exposure limits are given for reference only.

### Byproducts of overheating

Hydrogen Chloride (7647-01-0):  
ACGIH: 2 ppm (2.98 mg/m<sup>3</sup>) Ceiling  
OSHA: 5 ppm (7 mg/m<sup>3</sup>) Ceiling  
NIOSH: 5 ppm (7 mg/m<sup>3</sup>) Ceiling  
(NOTE: The odor threshold for HCl is 0.25 ppm)

Carbon Monoxide (630-08-0):  
ACGIH: 25 ppm (29 mg/m<sup>3</sup>) TWA  
OSHA: 50 ppm (55 mg/m<sup>3</sup>) TWA  
NIOSH: 35 ppm (40 mg/m<sup>3</sup>) TWA; 200 ppm (229 mg/m<sup>3</sup>) Ceiling

### PERSONAL PROTECTIVE EQUIPMENT

**Engineering Controls:** Provide local exhaust ventilation for heat welding and sealing operations  
**Eye/Face:** Wear safety glasses during processing  
**Skin:** Wear general purpose gloves during prolonged handling  
**Respiratory:** If exposure limits are exceeded, NIOSH approved respiratory protection must be provided  
**General Hygiene:** Wash hands with soap and water after handling material.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Color:</b>	Various	<b>Odor:</b>	Characteristic
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable	<b>Freezing Point:</b>	Not applicable
<b>Specific Gravity:</b>	Not applicable	<b>Evaporation Rate:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Solubility (water):</b>	None	<b>% Volatile:</b>	0

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## SECTION 10. STABILITY AND REACTIVITY

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<b>Chemical Stability:</b>	Stable at normal temperatures
<b>Conditions to Avoid:</b>	Avoid temperatures above 250°F
<b>Incompatible Materials:</b>	None known.
<b>Hazardous Decomposition:</b>	Thermal decomposition products: Hydrogen chloride, carbon dioxide, carbon monoxide, trace amounts of aliphatic and aromatic organics
<b>Hazardous Reactions:</b>	Will not occur

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## SECTION 11. TOXICOLOGY INFORMATION

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The information provided below can be subject to misinterpretation. Therefore, it is essential that the following information be interpreted by individuals trained in its evaluation.

### ACUTE TOXICITY

**General Information:** No data available for this product as a whole. Adverse health effects would not be anticipated with normal use. Due to the physical form of the product, significant exposure to the chemical components of the fabric and coating is not expected. However, thermal processing can emit fumes which may cause eye, skin, and respiratory irritation.

**Component Analysis:**

- PVC Resin (9002-86-2): None established
- Phthalate Plasticizer (trade secret): LD50 Rat: >2000 mg/kg
- Folpet (133-07-3):
  - LD50 (oral, rat) > 34.6 g/kg
  - LD50 (dermal, rabbit) > 2 g/kg
  - Inhalation (rat): 2.76 mg/L exposure for 4 hr produced no deaths, slight focal discoloration
- Antimony Trioxide (1309-64-4):
  - Oral LD50 Rat: >34600 mg/kg
  - Dermal LD50 Rabbit: >2000 mg/kg

### Byproducts of overheating

Hydrogen Chloride (7647-01-0): Inhalation LC50 Rat: 3120 ppm/1 hr; Dermal LD50 Rabbit: >5000 mg/kg  
Carbon Monoxide (630-08-0): Inhalation LC50 Rat: 3760 ppm/1 hr

### 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:**

- PVC Resin (9002-86-2):
  - IARC: Group 3 – Not Classifiable (Supplement 7, Monograph 19, 1987)
- Folpet (133-07-3):
  - EPA: B2 – Probable Human Carcinogen (sufficient evidence from animal studies; inadequate evidence or no data from epidemiologic studies)
- Antimony Trioxide (1309-64-4):
  - IARC: Group 2B – Possibly Carcinogenic to Humans (Monograph 47, 1989)
  - ACGIH: A2 – Suspected Human Carcinogen
- Hydrogen Chloride (7647-01-0) (byproduct of overheating):
  - IARC: Group 3 – Not Classifiable (Supplement 7, Monograph 19, 1987)
  - ACGIH: A4- Not Classifiable as a Human Carcinogen

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**CHRONIC TOXICITY**

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

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**SECTION 12. ECOLOGICAL INFORMATION**

No data is available on the adverse effects of this product on the environment. Toxicity is expected to be low based on insolubility in water.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

Dispose of waste in accordance with Federal, State, and local environmental control regulations. This material is not hazardous in its manufactured form under the Resource Conservation and Recovery Act. (40 CFR 261)

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**SECTION 14. TRANSPORTATION INFORMATION**

This product is not classified as hazardous for transportation.

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**SECTION 15. REGULATORY INFORMATION**

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

SARA 313 (TRI): This product is considered an "article" under SARA Title III Section 313 and is not subject to reporting under normal conditions of use.

California Proposition 65: **WARNING:** This material contains chemicals known to the State of California to cause cancer: Folpet (CAS# 133-07-3), Antimony Trioxide (CAS# 1309-64-4)

Inventory Status: All components are listed on the US TSCA Inventory and Canadian Domestic Substances List

WHMIS (Canada): This product meets the definition of "manufactured article" under the Hazardous Products Act

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**SECTION 16. OTHER INFORMATION**

The data in the Material 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, contact:  
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Phone: (330) 262-1111  
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Shelter-Rite® is a registered trademark of Seaman Corporation  
Kynar® is a registered trademark of Arkema

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists

EPA- Environmental Protection Agency

IARC – International Agency for Research on Cancer

NIOSH – National Institute for Occupational Safety and Health

NTP – National Toxicology Program

OSHA – Occupational Safety and Health Administration

PVC – Polyvinyl Chloride

SARA – Superfund Amendments and Reauthorization Act

TSCA – Toxic Substances Control Act

WHMIS – Workplace Hazardous Materials Information System



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