

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Westex FR-7A Fabrics

1.2. Intended Use of the Product

Use of the substance/mixture: FR Fabrics for secondary protection from flash fire and arc flash

1.3. Name, Address, and Telephone of the Responsible Party

Milliken & Co - Westex

122 West 22nd Street

Oak Brook, IL 60523

773-523-7000

1.4. Emergency Telephone Number

Emergency Number : 773-523-7000

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US classification

Not classified

2.2. Label Elements

GHS-US Labeling

No labeling applicable

2.3. Other Hazards

Within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]: this mixture is not considered a hazard when used in a manner which is consistent with the labeled directions. Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%
Cotton Fiber (raw, dust)	(CAS No) Not applicable	75 - 90
Phosphonium, tetrakis(hydroxymethyl)-, chloride (2:1)(salt), polymer with urea	(CAS No) 27104-30-9	10 - 25
Formaldehyde	(CAS No) 50-00-0	< 0.001

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: The need for first aid is not anticipated under normal conditions of use.

First-aid Measures After Inhalation: None expected under normal conditions of use.

First-aid Measures After Skin Contact: None expected under normal conditions of use.

First-aid Measures After Eye Contact: None expected under normal conditions of use.

First-aid Measures After Ingestion: None expected under normal conditions of use.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/Injuries After Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/Injuries After Skin Contact: None under normal use.

Symptoms/Injuries After Eye Contact: Prolonged exposure may cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion is not considered a potential route of exposure.

Chronic Symptoms: None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

None under normal use.

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SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising from the Substance or Mixture

Fire Hazard: Combustible Dust.

Explosion Hazard: Dust explosion hazard in air.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Risk of dust explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing dust. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

6.1.1. For Nonemergency Personnel

Protective Equipment: Use of personal protective equipment (PPE) is not generally required but should be evaluated based on the extent and severity of accidental release.

Emergency Procedures: Evacuate the area if accidental release presents a significant hazard.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection as conditions warrant.

Emergency Procedures: Upon arrival at the scene a first responder is expected to protect oneself and the public, secure the area, and call for the assistance of trained personnel as conditions permit.

6.2. Environmental Precautions

The product does not pose a significant hazard to the environment.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain the product and collect as any solid.

Methods for Cleaning Up: Clean up accidental release immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping as conditions permit.

6.4. Reference to Other Sections

See Section 8 for advice on personal protective equipment and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Further processing of the product requires an evaluation of potential hazards based upon intended use. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling: Avoid creating or spreading dust. Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: No specific conditions are necessary for storage of the product.

Incompatible Products: None known.

7.3. Specific End Use(s)

FR Fabrics for secondary protection from flash fire and arc flash

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

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USA OSHA	Remark (OSHA)	*Appendix B, NIOSH Manual of Analytical Methods: OSHA Permissible Exposure Limits (PEL) are set on the basis of mass of

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		toxic substance per unit volume of air at ambient conditions.
Formaldehyde (50-00-0)		
USA ACGIH	ACGIH Ceiling (ppm)	0.3 ppm
USA ACGIH	ACGIH chemical category	dermal sensitizer,Suspected Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (ppm)	0.016 ppm
USA NIOSH	NIOSH REL (ceiling) (ppm)	0.1 ppm
USA IDLH	US IDLH (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	0.75 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	2 ppm (see 29 CFR 1910.1048)
Cotton dust (raw) (Not applicable)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ (untreated-thoracic fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen untreated
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.200 mg/m ³ (less than stated value)
USA IDLH	US IDLH (mg/m ³)	100 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³ 200 µg/m ³ 500 µg/m ³ 750 µg/m ³

8.2. Exposure Controls

Appropriate Engineering Controls

: Engineering controls are not required for normal use of this product. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.

Personal Protective Equipment

: Not generally required. The use of personal protective equipment may be necessary as conditions warrant.

Materials for Protective Clothing

: None required.

Hand Protection

: Wear protective gloves to protect from abrasion.

Eye Protection

: Safety glasses.

Skin and Body Protection

: None required.

Respiratory Protection

: Under normal conditions of use this product cannot be inhaled. If used in a way that creates dust or vapors, approved respiratory protection should be worn.

Other Information

: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Woven fabric, dyed in various colors.
Odor	: No data available
Odor Threshold	: No data available
pH	: 4 - 9
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available

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Viscosity : No data available

9.2. Other Information: No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: None known.

10.5. Incompatible Materials: None known.

10.6. Hazardous Decomposition Products: Products of combustion include smoke, toxic fumes, compounds of carbon, hydrogen and oxygen, including carbon monoxide and oxides of phosphorous, sulfur and ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Formaldehyde (50-00-0)	
LD50 Oral Rat	100 mg/kg
LD50 Dermal Rat	270 mg/kg
ATE (Oral)	100.00 mg/kg body weight
ATE (Dermal)	270.00 mg/kg body weight
ATE (Gases)	700.00 ppmV/4h

Skin Corrosion/Irritation: Not classified

pH: 4 - 9

Serious Eye Damage/Irritation: Not classified

pH: 4 - 9

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Formaldehyde (50-00-0)	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/Injuries After Skin Contact: None under normal use.

Symptoms/Injuries After Eye Contact: Prolonged exposure may cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion is not considered a potential route of exposure.

Chronic Symptoms: None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

Formaldehyde (50-00-0)	
LC50 Fish 1	22.6 - 25.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	1510 µg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	11.3 - 18 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and Degradability

Westex Indura Fabrics	
Persistence and Degradability	Not established.

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12.3. Bio-accumulative Potential

Westex Indura Fabrics	
Bio-accumulative Potential	Not established.
Formaldehyde (50-00-0)	
Log Pow	0.35 (at 25 °C)

12.4. Mobility in Soil: No additional information available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose in a safe manner in accordance with local, regional, national, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Formaldehyde (50-00-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 302 Threshold Planning Quantity (TPQ)	500
SARA Section 313 - Emission Reporting	0.1 %

15.2 US State Regulations

Formaldehyde (50-00-0)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Formaldehyde (50-00-0)	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances	
U.S. - Pennsylvania - RTK (Right to Know) List	
Cotton dust (raw) (Not applicable)	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)