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To Whom It May Concern:

FR-7A[®] fabrics are treated for flame resistance with a phosphonium salt based urea-precondensate. This chemical (in monomer form) is applied to the fabric, cross linked with ammonia to form long chain polymers embedded in the cotton yarns and oxidized with hydrogen peroxide to complete the reaction. The chemical has been used commercially for thirty years and has been extensively studied for acute and chronic toxicity with no unusual activity found.

The flame retardant used contains some formaldehyde. Typically, the formaldehyde levels found are 200 to 300 parts per million (ppm) (0.02 to 0.03%) in fabrics as delivered to the wearer. Upon washing, this level will reduce to less than 100 ppm. It is important to note that typical permanent press (crease resistant) fabrics contain 100 to 200 ppm of formaldehyde. While a few individuals may show skin sensitivity to formaldehyde at these levels, the vast majority is unaffected.

The formaldehyde present in FR-7A fabrics is bound up in the fabric and is very unlikely to become airborne. When cutting and sewing our fabrics (as well as any fabrics), manufacturers should have adequate ventilation systems in place.

The Occupational Safety and Health Administration has set 1000 ppm as the reporting threshold per 29 CFR 1910.1200. While the levels in these fabrics are well below this, Westex has reported the values as a service to the industry. Westex processes and sells millions of yards of these fabrics every year and can assure you that the number of inquiries regarding a reaction to this chemical is minuscule. We are convinced that the small level of formaldehyde in FR-7A poses no significant health hazard to wearers.



PRODUCT IDENTIFICATION

DATA SHEET: 00-05 FR-7A[®] Flame Resistant Fabrics

DESCRIPTION: 100% Cotton flame resistant fabric, treated with a phosphonium salt precondensate, capable of releasing some formaldehyde. When tested by AATCC<Method 112 Release levels are substantially below 1000ug/g (0.1%) and typically are below 500ug/g (0.05%)

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HAZARDOUS INGREDIENT

<u>CHEMICAL</u>	<u>CAS. NO.</u>	<u>LIMIT - TWA</u>	<u>ATMOSPHERIC EXPOSURE REFERENCE</u>
Formaldehyde	000050-00-0	0.75	29 CFR 1910.1048

FIRE AND EXPLOSION HAZARDS

Flame resistant fabric may ignite in contact with flame; however, it should self-extinguish upon removal of ignition source. Products of combustion include carbon dioxide and carbon monoxide.

EXPOSURE CONTROL METHODS

General ventilation should be used to maintain exposures below applicable exposure limits. Recirculating systems should, whenever practicable, be operated in the bypass mode to avoid concentrating air contaminants in the workspace.

WASTE DISPOSAL

Landfill disposal of waste fabric may be made in accordance with local government regulations.

1/25/2010