FR31 Fire Retardant Fabric Treatment

PRODUCT DESCRIPTION

This product is highly effective, economical and environmentally friendly fire retardant treatment for fabric of most types. It can be used as a fire retardant and impregnating agent on practically all water absorbent materials. **FR31** can be applied by spraying, padding or immersion, or it can be incorporated directly into a product. The method of application depends on the type of material and structure of the fibre to be protected.

FEATURES

- Is an aqueous solution of inorganic salts. It is colorless and has a slight odour of ammonia in solution but is odourless when dry.
- Is chemically neutral or slightly alkaline with a pH of 7.0 to 8.0. Its primary role is to act as a flame retardant.
- Does not substantially affect the appearance or feel of the fabric if properly applied. The fabric remains soft and pliable. Since **FR31 Fire Retardant Fabric Treatment** is water soluble it can be washed out of both textiles and materials. Retreat after laundering.
- Is approved in ready to use, liquid form.

USES

Applications By Industry:
Convention/Hospitality; Furniture; Carpet; Entertainment; Residences; Trade Shows/Exhibitions/Fairs; Senior Citizen Homes; Nursing Homes; Military; Mining; Retail; Pulp and Paper; Libraries; Theatres and Museums; Public Office Buildings; Long Term Care Facilities; Automobile; Recreation Complexes; Publishing; Food Service; Government; Hospitals & Clinics; Hotels & Convention Centers; Rodeo (Straw) and other places of public assembly which are required to be furnished with fire resistant materials to protect the public, as well as property, against accidental ignition or arson.

Applications By Product Group:
Textiles: Lab Coats; Coveralls; Velour; Drapery; Curtains; Carpets; Tents*; Work Clothing; Wall Coverings; Cotton and Canvass; Linen (Table Cloths); Upholstery. **Paper and Cellulosic's:** Trade Show Displays; Straw and Hay; Decorations; Acoustic Tiles; Wood Chips; Sawdust; Packaging; Cardboard; Books and Documents; Crepe Paper; Fibre Roof Board.
*The water-soluble properties of **FR31 Fabric Treatment** limit these applications. Addition of a sealant is required to protect the Fire Retardant from leaching if exposed to water.

TECHNICAL DATA and PROPERTIES

Appearance/Odour Colorless free flowing liquid/slight ammonia odour
Specific Gravity 8.65 lbs/USG or 1.04 g/mL
% Volatiles/Vol 80%
Solids by Weight 20%
Solids by Volume Not available
pH 7.0-8.0
Dry Time Dependent upon fabric type and thickness
Coverage 1 to 1 (1:1) - i.e.: one pound of solution for one pound of fabric
Boiling Point Not available
Storage Limits Store in a cool dry location away from direct sunlight. Keep from freezing, above 32_0 F (0_0C)
Packaging Available in one quart, one US Gallon and five US Gallon quantities
Note: FR31 Fire Retardant Fabric Treatment is an aqueous solution of inorganic salts, chemically neutral or slightly alkaline with a pH value of 7.0-8.0. It has very low toxicology, but should be kept out of the reach of children.

INSTRUCTIONS FOR USE

- **FR31 Fire Retardant Fabric Treatment** can be applied by spraying, coating or immersing a fabric at any point in the manufacturing process.
- Do not dilute or mix with other products.
- Check the fabric for color-fastness before starting the treatment.
- Distribute solution evenly across the entire surface, ensuring that solution does not flow or drip to the extremes whenever possible.
- Dry on a horizontal drying rack, at moderate temperature (between 70 and 175^0 F) for optimal results.
- Tumble dry fabric in a warm dryer, (maximum temperature should not exceed 175^0 F).
- Iron fabric using a warm iron (maximum temperature 200^0 F). Iron a small area first, to ensure the color is not affected.
- To spray **FR31 Fire Retardant Fabric Treatment,** use a hand held or back pack pressurized spray container with an atomizer nozzle. Filter the solution into the tank to keep out any solids that may plug the nozzle. With daily use, the sprayer must be flushed out with clean warm water.

Coverage rate:
The required quantity depends on the absorbency of the material, its inherent flammability and its overall weight. As a rough guide:

- The maximum amount of **FR31 Fire Retardant Fabric Treatment** required is equivalent to the original weight of the material to be treated (80 to 100%).
- i.e.: if the dry fabric starts out weighing 1 lb., then it should pick up between 0.8 to 1 lb. of solution during treatment and retain an additional net added weight of 5.6 to 7 oz. after drying.

Fabric Cleaning and Care Instructions:
Detergents and water or shampooing (i.e.: of drapes, carpets, etc.) will remove **FR31 Fire Retardant Fabric Treatment** and re-application will be necessary. Re-treat after laundering.

Application to Straw, Paper and Other Cellulose based Products
Hay or Straw Bales for Display: Approximately 1 quart of **FR31S Fire Retardant Treatment** per bale is required for good penetration. Spray on with an atomizer nozzle.
Cardboard: Corrugated cardboard is best treated with a fine atomized spray on both sides. Do not soak material in any one spot for too long a period, since this will warp the cardboard and make it lose its shape.
Paper and Decorative Materials: Thorough saturation of paper with a spray will work. For best results, hang paper during spraying. Total immersion can be used but a test sample is advised.
Hazard Class
FR31 Fire Retardant Fabric Treatment is not subject to WHMIS Regulations, nor is it regulated by Transportation of Dangerous Goods.

TEST RESULTS

Typical Application
FR31 Fire Retardant Fabric Treatment is tested under **CAN/CGSB 4.2 27.1 MS.** The results show **"a high degree of flame resistance"** on fabrics such as:

- Polyester fabrics - 100%
- Cotton - 100%
- Polyester/Cotton blend - 65/35%
- Each of these fabrics is a medium weight (drapery/tablecloth) fabric

GUARANTEE/WARRANTY

Recommendations for the use of our products are based on tests carried out at government approved labs. Manufacturer and seller are not responsible for results where the product is used under conditions beyond our control. Under no circumstances will either party be liable for consequential damages to anyone in excess of the purchase price of the product or services.