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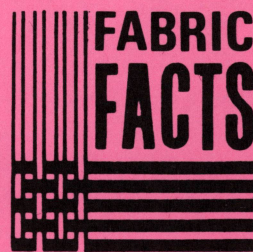
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Consumer Concern *Clothing Fires*



Clothing fires cause many deaths and disabling injuries a year. Major causes of fire accidents are matches and smoking materials, stoves, flammable liquids, heaters, open fires, candles and lack of adequate supervision. Most victims are young children, elderly and disabled persons.

Eliminating fire danger from everyday life should be an important goal for everyone.



BE INFORMED

Garment Design and Fabrics. Garment design, fit and fabric construction all influence ignition and rate of burn. Close-fitting garments are less likely to ignite than loose-fitting ones. Flowing robes and negligees, flared skirts, long, loose or blousy sleeves, ruffles and frills are quick to catch fire. These should not be worn cooking or working around an open fire.

Tightly woven, heavy fabrics burn more slowly than those that are sheer, lightweight, and loosely woven or knit. A napped fabric with air spaces between loose, fine fibers will ignite easier than a fabric with a smooth surface. Fabrics with short, thick pile are less likely to burn than those with high, fluffy pile.

Protection Laws. The Flammable Fabrics Act of 1953 prevented easily ignitable, flash burning fabrics from being sold. The result was a reduction of injuries due to flash burning of apparel products.

In 1967, the Flammable Fabrics Act was amended to include interior furnishings, paper, plastics and other materials used in apparel and home furnishings. The act also authorized the Secretary of Commerce to set additional flammability standards necessary to protect the public from "unreasonable risk of fires".

In 1971 Children's Sleepwear standard set flame retardancy requirements for all children's sleepwear, size 6X and smaller, manufactured and marketed after July 29, 1973. Sleepwear includes all children's robes, pajamas, sleepers and nightgowns. Home sewing fabrics intended for the same use are included under the regulation.

In May 1975, a similar standard becomes effective requiring children's sleepwear in sizes 7 to 14 to be flame retardant.

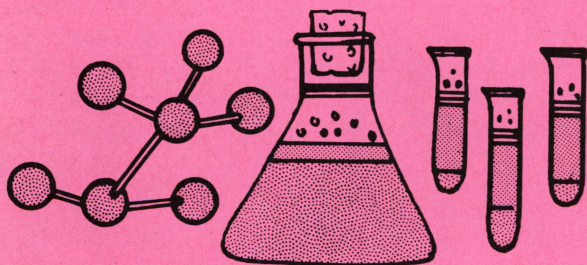
Flame Retardant Fabrics. Flame retardant fabrics and clothing are available now. A flame retardant fabric is one which will not continue to support a flame. It is self-extinguishing when removed from the source of ignition. Flame retardant fabrics may be made from one of these fibers:

Modacrylic fibers such as Dynel, SEF or Verel are flame retardant.

Specially developed nylons, rayons, acetates and polyesters are flame retardant. Some trademarks are Sayfr, Slumbermate, Slumber One, Nomex. The label on the fabric bolt or ready-made garment will indicate if it is flame retardant. Read labels carefully as not all man-made fibers are flame retardant. Man-mades, like nylon and polyester, are acrylics and less flammable than cellulose fibers, but tend to melt as they burn, forming a hot, sticky liquid which can cause local burns.

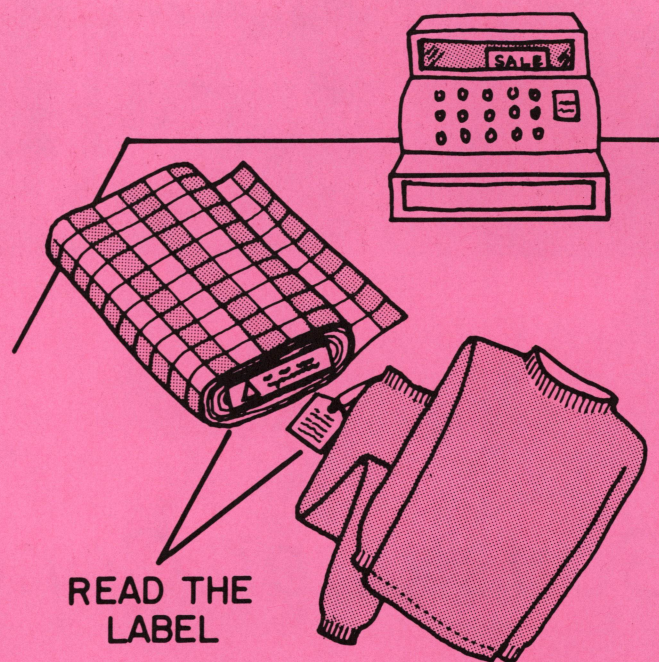
Wool and glass fibers are, by nature, more resistant to fire. When combined with other fibers or treated with certain finishes, their flame resistance may be decreased.

Silk in its natural state is not very flammable, but the burning rate may be increased when it is combined with other materials.



Finishes are used to make fabrics flame retardant. They are applied to the surface of a fabric. The finish must last through at least 50 launderings. Fabrics such as cotton, rayon and linen burn more readily than other fibers, so they need a finish to be flame retardant. Cotton used in children's sleepwear has a flame retardant finish. Firegard and Cuddlesoft are examples of flame retardant finished fabrics.

Although flame retardant fabrics can be effective in reducing the risk of clothing fires, no apparel will provide 100 percent protection from all types of fire accidents. Practically all substances burn when exposed to enough heat. Flame retardant fabrics plus fire prevention are needed to reduce the risk of clothing fires.



SHOP WISELY

Look for and buy clothing that is flame retardant when shopping for children, elderly and disabled persons. When shopping for fabrics, look for those specifically designated as flame retardant. There should be signs on the counter or shelf in the fabric department as well as information on the board end label. Be sure to get the sew-in permanent care label when you buy the fabric. Sew it in and follow care instructions exactly!

Fabrics or clothing that are not flame retardant will have this warning:

FLAMMABLE: does not meet Department of Commerce standard DOC FF 3-71. Should not be worn near sources of fire.

When flame retardant garments or fabrics are not available look for:

- * close fitting garments
- * tightly woven, heavy fabrics
- * smooth surfaced fabrics
- * short pile, dense fabrics
- * unblended wool, unsized silk and modacrylic fabrics

Avoid: flowing robes, flared skirts, long, loose or blousy sleeves. Ruffles and frills should not be worn around fire or stove.

FOLLOW CARE INSTRUCTIONS

To maintain the flame-retardant quality of a garment, read and follow carefully the care instructions on the label. Care requirements depend on the fiber used or the finish applied to make the fabric flame retardant.

Check the care label on the garment **you** buy for specific instructions, then follow them exactly. Generally.

Garments made from **fibers** that are flame retardant do not pose washing problems. Read the care label instructions and launder as directed.

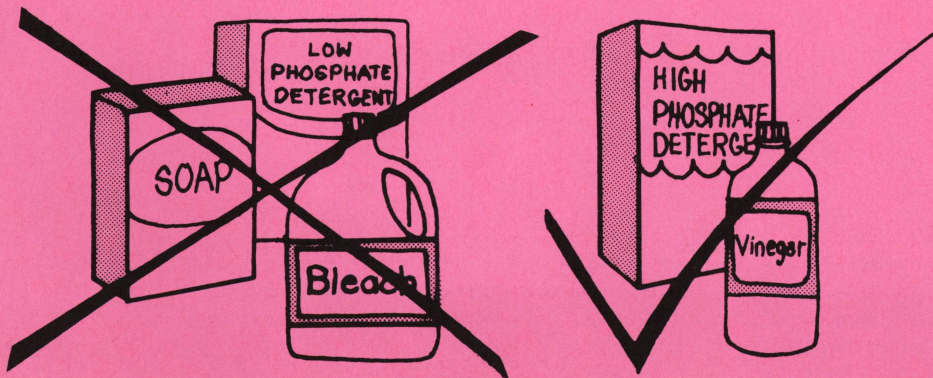
Garments with flame retardant finishes need special care. Read and follow directions. Usually, instructions warn against the use of bleach, soap or low phosphate detergents.



Soap and low phosphate detergents react with the minerals in water and soil particles to form curds. These curds stick to the fibers and reduce flame retardancy. High phosphate detergents keep the minerals in suspension until they can be rinsed away. In areas where high phosphate detergents are restricted, manufacturers suggest you use a low phosphate or low suds type detergent, but double the amount.

Bleaches attack the flame retardant finish. Strong chemicals used in commercial laundries also attack the finish.

If flame retardant fabrics become coated with mineral deposits, soak for an hour in a solution of one cup vinegar to a gallon of water. Do not soak in the washing machine; use a plastic or other nonporcelain pail. Check colored fabrics for acid resistance by leaving a few drops of the vinegar solution on a hidden area for 5 minutes.



BE CAREFUL

Government regulations concerning flame retardant fabrics and flame retardant apparel can help control the problem of clothing fires, but can never completely eliminate it.



1. Store matches and lighters out of reach of small children. Do not let children play with stoves.
2. Never leave small children alone — even for a moment.
3. Don't allow anyone to smoke in bed. If elderly or disabled persons live in your household, do not leave them alone while they are smoking.
4. Store flammable fluids out of reach of children and away from stoves or heating appliances. Keep stoves free of grease.
5. Keep combustible material outside the home. Ask children to help keep basements and attics orderly and free of debris.
6. Wear "safe" garments when near a stove, heater, or open fire.
7. Keep fire extinguishers in places where they are easily accessible, with instructions on how to use them.
8. Post fire instructions and emergency telephone numbers in clear view.
9. Hold fire drills and train family members to leave the house without panic if an emergency occurs.
10. Learn what to do in case of ignition. Avoid panic.

Panic seems most likely to occur as the first reaction of a person when his clothing is ignited. Burn injuries are more severe if the victim panics. If a clothing fire does occur:

1. Do not run.
2. Roll on the floor to smother the flames.
3. Smother the flames by wrapping the victim in a rug, coat or heavy blanket. Cutting off the air supply is the best way to put out a fire.

VOICE YOUR OPINION

Preventing clothing fires involves the textile-clothing industry, the government and the public — you. You, the consumer, are a vital part of this triad.

How do you answer the questions below?

Are you as concerned about clothing fires as legislators, governmental agencies, public safety organizations and the medical profession?

How important is flame retardant clothing to you in relation to appearance, wear, and care?

Do you really care about having clothes that will not burn?

Are nonburning fabrics the only issue involved?

Will governmental or voluntary controls to make "safer" fabrics eliminate the problem?

Let your feelings about these questions and others be known to government and industry!

Remember:

Eliminating fire danger from everyday life is an important goal for everyone!

This publication was prepared by Janice I. Buckner, Extension Textiles and Clothing Specialist.

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture, James L. Graves, Director of Cooperative Extension Service, University of Idaho, Moscow, Idaho 83843. We offer our programs and facilities to all people without regard to race, creed, color, sex, or national origin.