

How to Clean and Disinfect Textiles

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Articles that have been heavily contaminated with toxic chemicals such as concentrated pesticides or embedded fiberglass or asbestos should be thrown away. Many products labeled "dry-clean only" and severely damaged textiles are already ruined. Due to sewage, pesticide and other unknown toxic materials in flood waters, many clothing and interior textile products should be thrown away.

Start cleanup as soon as possible after flooding has occurred. To prevent further damage:

- Separate wet items to keep clothing colors from running together. Sort out clothing that should be dry-cleaned.
- Air-dry items before taking them to a dry cleaner. When drying items you suspect may have been in sewagecontaminated water wear rubber gloves.
- Do not dry any clothes near a heat source such as a stove. Dry at air or room temperature. Increase room temperature by running a furnace or stove if safe and possible.

If possible, take all furniture and rugs outdoors to dry.

Dry and air bedding, clothing and rugs quickly to prevent mildew.

Keep chemicals used for disinfecting, and poisons used for insects and rodent control out of the reach of children.

Wear protective clothing on legs, arms, feet and hands while cleaning debris. Wear rubber gloves while scrubbing flood-damaged interiors and furniture.

If clothes were soaked during storm flooding, be aware that the flood water may have been contaminated with sewage waste.

Simply drying the clothes is not enough.

For safety's sake, they must be disinfected to kill all harmful bacteria. Liquid chlorine bleach is the cheapest and easiest disinfectant to use in the home. However, chlorine bleach cannot be used on some garments. Since chlorine bleach both disinfects and bleaches, when chlorine bleach can't be used, both a disinfectant and an oxygen bleach will be needed. Dry cleaning is also effective. However, most textiles that require dry cleaning have already been ruined (i.e. shrunk, lost color) by the flood waters.

Directions for Cleaning Flood-soiled Fabrics 1

Be sure that wash water is safe to use before washing clothing. Be sure the washing machine is clean and sanitized. Scrape mud and/or shake dirt and residue from fabrics, then rinse or wash as soon as possible to help prevent the growth of mildew. Prewash fabrics in cool water using powdered laundry detergent. Do not use hot water, as hot water may set stains.

- Some washers have a prewash cycle that includes a short soak period; the washer may automatically advance to the regular wash. Refer to your washer instruction manual to see how to set your washer for the automatic prewash cycle or how to manually set the controls to agitate and then spin.
- Use small loads with a full water level.
- To help remove protein stains, such as sewage, add an enzyme presoak product to the prewash.
- Measure detergent into the washer, then add water and allow detergent to thoroughly dissolve before adding clothes.

• Allow clothes to rinse and spin dry. Do not dry in the dryer.

Pretreat heavily soiled stains with a prewash soil and stain remover or an enzyme presoak product.

- A prewash soil and stain remover works well on oil-based stains like animal fats, soils, cooking oils, cosmetics and motor oils.
- An enzyme presoak works well on protein stains like blood, body fluids, dairy products and grass.

Wash clothing using small loads and a full water level.

- Use hottest water safe for fabric.
- Use a powdered laundry detergent (a powdered detergent is effective in removing clay and ground-in dirt), using slightly more detergent than recommended on the package.
- Since clothing may have been contaminated with sewage, it is important to use a disinfectant ${}_2$ in the wash. Use a disinfectant that has laundry directions on the label and follow those directions or use chlorine bleach (Note: If there is a large amount of iron in soil deposits or in the water, chlorine bleach can cause rust stains to appear on fabrics. Check labels. Some fabrics cannot be washed using chlorine bleach.)

• If chlorine bleach is not recommended, a color-safe (oxygen) bleach will also help remove stains and odors, and will not set rust stains. However, color-safe bleaches do not disinfect.

If there are rust or rust-colored stains on fabrics, use a commercially prepared rust remover to help remove them. Look for these products in the laundry or fabric dye section of the supermarket. Usually they are intended to be used on white or colorfast fabrics. They can cause color removal. Follow package directions and test first on a small area of the garment that won't show.

If fabrics have been wet for any length of time, mildew might appear. Wash stained items using chlorine bleach, if safe for fabric. Or, soak in oxygen bleach and hot water, then wash. Mildew is difficult to remove, and badly mildewed fabrics may be damaged beyond repair.

Continue to wash as many times as needed. Do not dry fabrics in a dryer until you are satisfied with the results. Drying in a dryer can set stains, making them impossible to remove.

1 The Soap and Detergent Association, 475 Park Avenue South, New York, NY 10016, July 93. 2 For disinfecting, use only products that display an EPA Registration Number on the label. This assures that the product has met EPA requirements for disinfectants. When using any disinfecting product follow the label directions for use. Most disinfectants, other than chlorine bleach, are effective only on hard surfaces.

Deanna Munson, Extension Specialist, Textiles Artyce Hedrick, Extension Specialist, Clothing

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