

CHEMICAL SPILLAGE ON CLOTHES (13) WHAT TO DO

As a garment analyst I have tested thousands of garments which have been damaged by strong chemicals. These chemicals might be strong acids, alkali or bleach. Contact with a strong chemical can cause color loss on fabrics and eventual weakening and deterioration of the fabric. If the right steps are immediately taken many of the damages might have been avoided. It is important to understand what removes the chemical safely and what may neutralize the effects of the chemical. Fabrics most susceptible to chemical damage are cottons, linens, silks, wools and rayon. Polyester, nylon and acrylics are less susceptible to damage.

STEPS TO REMOVE THE CHEMICAL FROM THE FABRIC

- (1) Cold water-It is important to flush the affected area with cold water. Hot or warm water accelerates the chemical action. Every 18 degrees rise in temperature doubles the chemical action. This means a water temperature that rose from 60oF to 78oF causes the chemical action to double producing more chance of damage.**
- (2) Detergent-A mild detergent such as Tide must also be used to aid in removal of the chemical. Water alone does not effectively remove strong chemicals. This was proven in a laboratory setting when water alone was used to flush the chemical. When a detergent is added to the water the chemical was effectively removed.**
- (3) Strong acids-Most fabrics are affected by strong acids such as hydrochloric, sulphuric and battery acids which are found in many medicines, metal cleaners and other household materials. After proper and thorough rinsing the acid should be neutralized with a mild alkali such as household ammonia. This completely neutralizes the acid and may restore a color change that may have occurred. The chemical reaction of an acid and an alkali produces salt and water. Never put the ammonia on the fabric without properly rinsing the affected area. If an alkali is put on the fabric without thoroughly rinsing a strong chemical reaction is produced. After area is neutralized it should be rinsed again.**
- (4) Alkali-Examples of strong alkali are caustic soda, lye and potassium hydroxide. After thoroughly rinsing the affected area it should then be neutralized with a mild acid such as white distilled vinegar. The affected area should then be rinsed again.**
- (5) Household bleach- (Sodium Hypochlorite)-After properly rinsing the affected area it should be treated with an antichlor which is sodium hydrosulphite and sodium bisulphate. This is found in products such Iron Out and Yellow Out. They are rust removing products which are found in Publix and other supermarkets. This will often restore the yellowed discoloration that may occur on a white wool or silk. If the color has been removed the damage can rarely be corrected.**

