



CAUSE AND PREVENTION OF CARPET AND UPHOLSTERY SPOTS AND STAINS

Spots, stains and discoloration of carpets, upholstery and other home furnishings textile products happen as a result of normal family activity in our homes. Basically, there are two types of spots that appear. The first type is the common stain which occurs when food is spilled or ordinary dirt or oily substances are tracked in. These spots are usually seen immediately and can usually be removed without damage to carpet or upholstery fabrics.

A second type of stain or discoloration on home furnishings textiles is caused by chemicals. This type of stain may not be apparent for days or even months after chemical contact. The chemical actually changes or destroys the dye and nothing can usually be done to restore the dye to its original color. Since there are few known dyes which will resist chemical attack, and manufacturers cannot prevent their products from coming into contact with these chemicals, these types of spots and stains are not covered under most manufacturers' warranties.

The only real solution for consumers is in the careful use of any household chemical products. It is very important that you read and carefully follow the directions. Special attention should be given to any precautions or warnings that are supplied by the manufacturer.

Some of the more common chemical products known to cause problems include medications, certain cosmetics, all household bleaches, disinfectants, furniture polish, certain plant foods, fertilizers and insecticides. The effect differs according to the type of chemical, the environmental conditions and the particular textile products involved. Chemicals, for instance, can lie dormant until a change in humidity, temperature, moisture or sunlight activates the chemical reaction. This delayed reaction then makes the spots seem to appear quickly and without cause. For example, relatively high humidity is necessary to start a bleaching action, and many other chemical agents require wetness to trigger a reaction. As a result, discoloration may occur shortly after a carpet or upholstery fabric is cleaned. This is not the fault of the cleaning product or the person doing the cleaning, but is simply the delayed result of the chemical reaction.

Knowledge and correct use of the household chemicals is important for the prevention of these spots and stains. (A table of the possible chemicals that can cause damage can be found on page 2.)

Identifying Chemical Spots and Stains

The following questions may be helpful when trying to identify the source of chemical spots and stains on carpets and other household items.

1. Where is the spot located in the house and within a room? Is it located in teenagers room, near baseboards, or near house plants? What chemicals have been used or carried into this area?
2. Was the substance spilled or tracked onto a carpet? Study the pattern of the spot or stain. Spills often resemble explosions and radiate out from the center. They will also generally be larger near the

backing than on the surface. Tracking in from another area leaves a clearly defined shape, such as a footprint. These stains are usually found on the top of the tufts of yarn.

3. Does the spot have an odor? If so, a foreign substance is present, and the type of odor could be a clue to its identity.
4. What color are the spots? Different chemicals react differently to the variety of colors and dyes found in carpets. They also react differently under various climatic conditions. In general, red spots on tan or beige carpet suggests strong acids. Yellow stains indicate reactions by strong oxidizers or bleachers. Green or blue stains indicate sunlight combined with another substance. **Note:** Dye spots caused at the mill during production are rare and are always darker, never lighter, than the background.

Treatment

Once a textile product has been chemically stained, nothing can be done either by an individual or a professional cleaner to restore it to its original color and condition. In this case the best that can be done is to identify the source of contamination and prevent further damage to the item. It's important to prevent spots from occurring in the first place by using household chemicals with care.

Possible Chemicals That Can Cause Damage

| Chemical | Where Found | Areas stained | Color |
|---|--|--|--|
| Benzoyl peroxide | acne medications; fade/age creams; foot care preparations; some pet shampoos | carpets; upholstery, sheets; towels | orange or yellow; pinkish or white on blue carpet |
| Sodium hypochlorite Calcium hypochlorite | chlorine bleach; oxygen bleach; swimming pool chemicals; mildew removers | carpets; upholstery | yellow; green stain on textiles dyed red |
| Hydrochloric acid | toilet bowl cleaner; tile cleaner; corn/callous removers; vomit | carpets; upholstery; other textiles | pink or orange; bright blue (on textiles dyed red) |
| Sodium hydroxide (lye) | drain cleaners; oven cleaners | | may destroy fabric itself |
| Malathion Diazinon DDVP | pesticides; insecticides | often occurs on carpets around baseboards | fading of color |
| Phenols | disinfectants; germicides; bathroom cleaners | carpet; other textiles | fading of color |
| Urine | | carpet; upholstery | dull yellow or red |
| Assorted chemicals | furniture polishes | carpets around base of furniture | destroys red dyes; green or blue spot |
| Assorted chemicals | plant foods and fertilizers | spills or leakage causes stain from backing toward surface of carpet | dull yellow |

Source: Chemical Spots, Stains and Discoloration of Textiles Home Furnishings. American Textiles Manufacturers Institute with ES-USDA.