

FREEING THE TOXIC HOME

By Maia Kaiser, for the Directorate of Safety, Health and Environment.

Common household chemicals are among the most serious threats to the health of children, with cleaning products among the most hazardous. More than 90 percent of calls to poison control centers are regarding household chemical exposure. Children under six years of age account for about 50 percent of all reported poison cases. Household cleaners can be toxic, corrosive, irritating, and flammable. The good news is that alternatives to traditional harsh cleaners are available.

When choosing a cleaner look for products that are nontoxic and biodegradable. Read the product labels and avoid products that are labeled "poison/danger." Manufacturers are required to label products to protect consumers and help them make informed choices. Products labeled "poison/danger" are highly toxic and ingesting as little as a few drops can be fatal. Products that are labeled "warning" are moderately toxic. Look for products that have the lowest hazard rating sufficient to accomplish the task.

Myths surround the use of natural and environmentally friendly household or "green" cleaners. The most common concerns are that they will not perform as well as synthetic chemical products and they will be more expensive. Both concerns are unfortunate misconceptions.

Green cleaners can be found in many of the same places that sell synthetic cleaners (like your grocery store), at prices that are comparable, and often significantly cheaper. You can easily make green cleaners easily with ingredients present in your home (e.g., baking soda, vinegar, lemon peels, tomatoes) saving you even more money.

Homemade green cleaners have been time-tested and usually perform as well as synthetic chemicals, depending on the situation. Society used green cleaners long before the synthetic chemical industry evolved. Until after World War II, homes used a limited number of simple products to keep clean and odor-free. Most common were soap, vinegar, baking soda, washing soda, ammonia, borax, alcohol, and cornstarch. Certain foods were used to lift out spots and stains, deodorize, polish wood or metal, disinfect, scrub, repel pests, clean pets, wash and starch clothes, and perform other household tasks.

Developments in the synthetic cleaning field have traditionally imitated traditional folk recipes. Annie Berthold-Bond, author of *Clean & Green*, says, "The acid in lemon juice works as well as an artificial acid to clean aluminum, and a lemon doesn't threaten your health."

Common Green Cleaner Ingredient Properties

Baking soda deodorizes, scrubs shiny metals without scratching, softens fabrics, and extinguishes grease fires.

Borax disinfects, deodorizes, inhibits mold and mildew growth, and can be used with attractants, like sugar, to kill cockroaches.

Cornstarch cleans windows, polishes furniture, and shampoos carpets and rugs.

Isopropyl (i.e. rubbing) alcohol disinfects.

Lemon juice cleans glass, and removes stains from aluminum.

Vinegar dissolves mineral deposits and grease, removes traces of soap, removes mildew or wax build up, shines windows without streaking, and cleans brick and stone.

Washing Soda cuts stubborn grease on grills, broiler pans, and ovens.

There are many simple recipes for effective household cleaners consisting of various combinations of these ingredients that can be found easily on the labels of these products themselves, the Internet, and in books.

For more information contact Maia Kaiser, Pollution Prevention Specialist, at 410-306-2274 or maia.kaiser@usag.apg.army.mil.