

## HOME PRODUCTS: ENVIRONMENTALLY TOXIC OR SAFE?

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### What is a Hazardous Substance?

The U.S. Environmental Protection Agency defines as hazardous, any substance that can catch fire, react, or explode when mixed with other substances, or is corrosive or toxic. A substance is toxic if it is harmful when it enters the body.

Consumers should consider using products which are largely free of toxic effects on the environment. Following is a list of common home products and alternatives that have proven to be effective. Most include comments to help you get the best and safest performance from the alternative products.

A word of caution: Never mix products containing ammonia with chlorine bleach, vinegar, toilet bowl cleaners, rust removers or oven cleaners. This combination may release pungent, poisonous gasses.

#### **PRODUCT** - Aerosols

**ALTERNATIVE** - Use pump-spray or other nonaerosol such as stick or roll-on deodorants.

**COMMENT** - Most propellants are either nitrous oxide (which is associated with brain damage and may cause cancer) or propane (which is highly flammable).

#### **PRODUCT** - Air fresheners and deodorizers

**ALTERNATIVE** - Open a window or use an exhaust fan--or do both. Sprinkle baking soda in odor-producing areas or set vinegar out in an open dish. Place an open box of baking soda in the refrigerator to absorb food odors.

**COMMENT** - Air fresheners don't actually "freshen" the air; they deaden a person's sense of smell.

#### **PRODUCT** - Brass and Bronze (unlacquered)

**ALTERNATIVES** - (1) Mix equal amounts of salt and flour with a small amount of vinegar. Rub item with a soft, damp cloth. Rinse and polish with a dry cloth. (2) Make a paste of lemon juice and salt; rub it on with a soft cloth; rinse with water and dry.

(3) Use a slice of lemon sprinkled with baking soda. Rub brass with the lemon slice; rinse with water and dry.

#### **PRODUCT** - Carpet deodorizers

**ALTERNATIVE** - Sprinkle baking soda over the entire carpet. Use approximately 1 cup per medium-sized room. Vacuum after 30 minutes.

**COMMENT** - Baking soda will absorb smoking, cooking, and pet odors that settle into the carpet. (Do not put baking soda on a damp carpet.)

#### **PRODUCT** - Carpet and rug shampoos

**ALTERNATIVE** - Mix 1/2-cup mild liquid dishwashing detergent with 1 pint boiling water; let cool. Whip the paste into a stiff foam using an electric mixer. Apply it to the carpet with a damp sponge. Rub gently. Work in 4 x 4 foot sections. Wipe off the suds with a clean cloth. To rinse, add 1 cup of white vinegar to 1 gallon of lukewarm water. Rinse each section and wipe the carpet dry as you go.

**COMMENT** - Change the rinse solution frequently. Clean the carpet on a dry, sunny day with the windows open to speed drying. Don't soak the carpet or it may mildew. Test any shampoo first on an inconspicuous area to see if it discolors the carpet.

#### **PRODUCT** - Ceramic tile cleaner

**ALTERNATIVE** - Use borax and water. For blackened grout, apply white vinegar with a toothbrush. For rust stains, apply a paste of equal parts of hydrogen peroxide and cream of tartar. Soak 15 minutes and rinse.

#### **PRODUCT** - Copper

**ALTERNATIVE** - Follow procedures in numbers 1 and 2 for brass and bronze. You can also apply catsup and wash it off quickly.

#### **PRODUCT** - Disinfectants and germicides

**ALTERNATIVE** - Wash items with soap and water, or with borax or sodium carbonate (washing soda) in water.

**PRODUCT** - Drain cleaners

**ALTERNATIVE** - Mix 1 cup each of baking soda, salt, and white vinegar; pour down drain. Wait 15 minutes. Flush drain thoroughly with boiling water. Use a rubber plunger or plumber's snake if drain is seriously clogged.

**COMMENT** - A commercial drain opener that fails to work leaves a drain clogged with a highly caustic compound.

**PRODUCT** - Floor strippers

**ALTERNATIVE** - Pour a small amount of club soda on a section of floor. Scrub well; let soak for a few minutes, then wipe clean.

**PRODUCT** - Furniture polish

**ALTERNATIVE** - Use olive oil, 100 percent lemon oil, beeswax, or beeswax and olive oil. Or mix 2 teaspoons lemon oil and 1 pint mineral oil in a spray bottle.

**PRODUCT** - Oven cleaner (do not use on self-cleaning ovens)

**ALTERNATIVE** - Wipe away grease and spills after preparing each meal. Wipe away charred spills with a nonmetallic bristle brush. To remove baked-on grease spills, scrub with a paste of baking soda, salt and water. Or sprinkle with dry baking soda; scrub with a damp cloth after 5 minutes. (Don't let baking soda touch wires or heating elements.) Scour racks and burner inserts with steel wool. A dish of ammonia left in the oven overnight will soften burned spills. The ammonia can be reused.

**COMMENTS** - Aerosol oven cleaners are among the worst contributors to indoor air pollution. No matter how thoroughly you try to rinse these cleaners, a residue remains that emits additional fumes when the oven is heated again. Self-cleaning ovens avoid the problem completely. Care should be taken with ovens having automatic cleaning systems--the continuous clean (catalytic) or the self-cleaning (pyrolytic) finishes. Harsh cleaners or abrasives must not be used on these ovens since the finish in the linings may be damaged or destroyed.

**PRODUCT** - Silver cleaners

**ALTERNATIVE** - Pour water into an aluminum or enamel pan with aluminum foil covering the bottom. Fill to a depth of 2 to 3 inches (enough to cover silver with water). Add 1 teaspoon each of baking soda and salt, and heat until water boils. Add tarnished silver and boil 3 minutes. Remove silver, wash in soapy water, and polish dry. (Not for use on silver jewelry or flatware with hollow handles.)

**PRODUCT** - Toilet-bowl cleaner

**ALTERNATIVE** - Pour 1/2-cup liquid chlorine bleach into toilet bowl. Let stand for at least 30 minutes, then scrub with a long-handled brush and flush. Or use soap and sponge or a stiff brush and one of the following: baking soda, borax, or salt.

**PRODUCT** - Window cleaners

**ALTERNATIVE** - Measure 3 tablespoons ammonia and 3/4-cup water into a clean spray bottle. Or use a solution of 2 tablespoons vinegar in 1 quart water.

**References:**

Eleanor Walls  
Cooperative Extension Service  
University of Arkansas  
Little Rock, Ark.  
Pub FSHEJ2

Hazardous Household Products  
Agricultural Extension Service  
University of Tennessee  
Knoxville, Tenn.  
SP365-B, 1989.

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