



## **Cleanliness and Godliness:**

### **A Green Cleaning Toolkit**

From the

National Council of Churches Eco-Justice Programs

*Scripture teaches us that we are all created in the image of God and that our bodies are temples of the Holy Spirit. Our 21st century lifestyles, however, often cause our bodies to reflect modern lifestyles more than sacred living. There are over 82,000 synthetic chemicals registered for use in everyday household items, emulsifiers, automotive, agricultural, food processing, and other industries. We are exposed to these chemicals in our homes and work places, in the food that nourishes us, and in the air we breathe. Alarming, only ten percent of these chemicals have been tested for their effects on human health.*

--from "Mindful Living: Human Health, Pollution, and Toxics"

National Council of Churches Eco-Justice Programs, 2008

There are many good reasons to use nontoxic cleaning products. They are safer for you, much safer for children, and are part of good hospitality. They are generally less expensive, widely available, and may involve less packaging and advertising. Also, they are quite effective. Though they may lack artificial scents, colors, and foaming agents used in commercial products to give you the impression that the product is working, they tend to work as well or better than their more toxic and expensive counterparts. Experiment for yourself!

### **Safer, Effective Cleaning Alternatives:**

**Baking Soda** - cleans, deodorizes, softens water, scours.

**Borax** - cleans, deodorizes, disinfects, and softens water. Cleans wallpaper, painted walls and floors without damaging their finish.

**Cornstarch** - can be used to clean windows, polish furniture, shampoo carpets and rugs.

**Isopropyl Alcohol** - an excellent disinfectant.

**Soap** - unscented soap in liquid form, flakes, powders or bars is biodegradable and will clean just about anything. Avoid using soaps which contain petroleum distillates or fragrances. Many detergents are labeled "soap" but are made from petroleum products and contain dyes, fragrance, additives, surfactants, foaming agents and alcohols.

**Washing Soda** – (sodium carbonate) cuts grease, removes stains, softens water, and cleans walls, tiles, sinks and tubs. It's very effective, so use with care and do not use on aluminum. Not the same as baking soda. Arm and Hammer is easy to find with the laundry detergents in many stores.

**White Vinegar** - cuts grease, removes mildew, odors, some stains and wax build-up.

### **Recipes for homemade nontoxic cleaning products:**

**Freshen air** by opening windows for a short period; distribute half-filled dishes of vinegar around the house; boil cinnamon and cloves in a pan of water to scent the air; sprinkle 1/2 cup borax in the bottom of garbage pails or diaper pails to inhibit mold and bacteria growth that can cause odors.

**All-Purpose Cleaner:** Mix 1/2 cup vinegar and 1/4 cup baking soda (or 2 teaspoons borax) into 1/2 gallon (2 liters) water. Store and keep. Use for removal of water deposit stains on shower stall panels, bathroom chrome fixtures, windows, bathroom mirrors, etc.

**Disinfectant.** Mix 1/2 cup borax into 1 gallon of hot water to disinfect and deodorize.

**Drain cleaner.** To open clogged drains, try a good old fashioned plunger first. Just as 90% of computer problems can be solved by turning the machine off and then on again, 90% of clogged drains can be plunged and cleared. If that doesn't work, pour 1/2 cup baking soda down drain, add 1/2 cup white vinegar, and cover the drain. After 15 minutes, pour hot water to clear residue. **Important Safety Note: Do not use this method in conjunction with a commercial drain opener--the vinegar can react with the drain opener to create dangerous fumes.** Just as with computer problems, if the easy solutions don't work, it may be time to call a professional, or your uncle Simon.

**Floor cleaner and polish.** Add 1 cup of vinegar or a small amount of lavender oil to a pail of warm water. For vinyl or linoleum flooring, add a capful of baby oil to the water. For wood floors add 1/4 cup liquid castile soap and 1 cup vinegar to 8 liters warm water. For brick and stone tiles, use 1 cup white vinegar in 1 gallon water and rinse with clear water.

**Oven cleaner.** In a spray bottle, mix 2 tablespoons liquid castile soap, 2 teaspoons borax and warm water to fill bottle. Dissolve completely. Spray on, keeping nozzle close to oven surface. Leave solution on for 20 minutes, and then scrub with nylon scrub pad and baking soda. (There are times when elbow grease is an important part of the recipe as well.)

**Scouring powder.** Combine 1 cup baking soda, 1 cup borax and 1 cup regular salt.

**Toilet bowl cleaner.** To remove mineral buildup, put 1-2 denture cleaner tablets in bowl and let sit overnight, and then clean with white vinegar. Or pour a mixture of 1 cup of borax and 1/4 cup vinegar into toilet and let sit overnight before scrubbing.

**Tub and tile cleaner.** Mix 1/4 cup baking soda with 1/2 cup white vinegar.

**Window and glass cleaner.** To avoid streaks, don't wash windows when the sun is shining. Create a 50/50 mixture of water and vinegar or lemon juice in a non-aerosol spray bottle. Spray on glass and wipe with newspaper.

**Laundry Products.** Soap, rather than detergent, is an effective cleaner for natural fabrics, leaving items softer than detergent. A cup of vinegar added to the wash can help keep colors bright. One-half to three-quarters of a cup of baking soda will leave clothes soft and fresh smelling. Silks and wools may be hand washed with mild soap or a protein shampoo, down or feathers with mild soap or baking soda. **DO NOT USE CHLORINE BLEACH.**

## **Safer Commercial Cleaning Products**

Most of us will continue to use some commercial cleaners, and the good news is that there are more safe and effective off-the-shelf products available than before. Things to look for are:

- Natural and naturally derived ingredients from sustainable sources. You may need to ask, and this is good because it helps store managers know that there is an interest in nontoxic products.
- A minimum of mystery ingredients or chemicals of concern
- Packaging free of bisphenol-A, phthalates, and toxic inks. Again, you may need to ask.
- Biodegradable
- Recyclable packaging, wipes, and dryer sheets
- No chlorine bleach, phosphates, nitrates, or borates

- Concentrated products save energy, eliminate excess packaging, provide value
- No Phthalates, 1,4-Dioxane, Volatile organic cleaning compounds, Hydrochloric acid, Ammonia Sodium hydroxide, Butyl cellosolve Formaldehyde, Harmful fumes, xylene, sodium lauryl sulfate

The words “Organic” and “Natural” do not necessarily mean nontoxic on cleaning products—check the ingredients. Look for the words, “fragrance free.” (Some “unscented” products have fragrance to mask the chemical smell of the product.) The contents of “Fragrance” are a trade secret and may contain chemicals that studies have shown to be toxic. Also, if you find a brand that makes a safe laundry detergent, it does not follow that their dish soap is equally nontoxic. Sometimes, you can trust your nose. If a product smells “chemically,” if it burns your nose and eyes or gives you a headache, consider it suspect. However, this does not mean that a product that doesn’t bother you is safe. As you become savvier, you will find products that work for you. Again, the good news is that there are actually some products that can be found in major super markets or natural food stores that are less toxic or even honest to goodness non-toxic.

You can also look up a variety of products and ingredients on the [U.S. Department of Health and Human Services](http://www.householdproducts.nlm.nih.gov/index.html) website at: <http://www.householdproducts.nlm.nih.gov/index.html>

### **Some Ingredients to Avoid:**

**Aerosol products** - May contain propane, formaldehyde (a carcinogen, neurotoxin and central nervous system depressant), methylene chloride (a carcinogen, neurotoxin and reproductive toxin), and nitrous oxide.

**Alkyl phenol ethoxylates (APEs) and nonylphenol ethoxylates (NPEs)** are surfactants found in laundry detergents, stain removers, and all-purpose cleaners. They have been found to reduce embryo survival in fish and alter tadpole development.<sup>i</sup>

**Ammonia** - A severe eye and respiratory irritant that can cause intense burning pain, corrosive damage including chemical burns, cataracts and corneal damage. It can also cause kidney and liver damage. Ammonia reacts with bleach to form poisonous chlorine gas. It is found in a very wide range of cleaning products.

**Diethanolamine (DEA)** - Listed as a suspected carcinogen by the State of California, this chemical is a skin and respiratory toxicant and a severe eye irritant. It is used in a wide range of household cleaning products.

**Glycol ethers**, such as 2-butoxyethanol, are solvents commonly found in glass cleaners and all-purpose spray cleaners. They have been associated with low birth weight in exposed mice.<sup>ii</sup>

**Monoethanolamine** may cause liver, kidney and reproductive damage, as well as depression of the central nervous system. Inhalation of high concentrations - when cleaning an oven for example - can cause dizziness or even coma. Monoethanolamine can also be absorbed through the skin. It is a moderate skin irritant and a severe eye irritant. It can be found in many cleaning products, including oven cleaners, tub and tile cleaners, laundry pre-soaks, floor strippers and carpet cleaners.

**Phthalates** are carriers for fragrance in glass cleaners, deodorizers, laundry detergents and fabric softeners that are linked to adverse effects on male children, reduced sperm count in adult men, and increased allergic symptoms and asthma in children.

**Sodium hypochlorite (bleach)** is a corrosive chemical, eye, skin and respiratory irritant, as well as a sensitizer. It is especially hazardous to people with heart conditions or asthma, and can be fatal if swallowed. It may be a neurotoxin and toxic to the liver. It is contained in a wide range of household cleaners.

**Sodium Lauryl Sulfate** is used as a lathering agent. It is a known skin irritant and it enhances the allergic response to other toxins and allergens. Sodium lauryl sulfate can react with other ingredients to form cancer-causing nitrosamines. It is found in a wide range of cleaning products.

**Xylene** is a neurotoxin that can lead to memory loss, loss of consciousness and even death in extreme exposures. It may damage liver, kidneys and the developing fetus. It is a severe eye and moderate skin irritant. Xylene is used in some spot removers, floor polishes, ironing aids and other products.

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<sup>i</sup> Women's Voices for the Earth.

<sup>ii</sup> Women's Voices for the Earth. Other information on this fact sheet is courtesy of the Alliance for a Healthy Tomorrow and Coalition for a Clean and Healthy Connecticut.