

**CLEANING OUR HOMES SAFELY**

Children should do chores around the house to learn from their parents ways to organize and simplify tasks, and to use cleaning products safely. In doing so, children also learn to appreciate the household chores that others do for them. Face it, cleaning is a never-ending chore. However, I have been reluctant to ask my children to become involved in cleaning because of the hazardous nature of the cleansers I had been purchasing. Cleaning the bathroom in our house typically meant throwing a toxic chemical bomb that irritated my lungs, yet didn't completely remove the combination of mold and minerals that seem to form continually around faucets and crevices.

According to TV ads, the way to protect ourselves from bacteria and germs taking over our world, is to immerse ourselves in a curtain of chlorine and ammonia vapors. The commercials show germs and bacteria growing at exponential rates as they poison our food supply and make our children gravely ill. We begin to feel that the only way to protect our family is by purchasing air disinfectants, hand disinfectants, household disinfectants and insecticides that contain disinfectants. Most of these ads do not warn us of the toxic nature of disinfectants and other cleansers. Yet, when reading the label we find that these products contain ingredients that are carcinogenic or cause symptoms such as runny nose, itchy eyes, scratchy throat, headaches, fatigue, dizziness, skin rash, and respiratory infections. For example, see descriptions for the chemicals chlorine and ammonia<sup>1</sup> in the table below:

<b>Ammonia</b>	<b>Chlorine</b>
<b>Acute health effects:</b> Can cause headache, loss of sense of smell, nausea, and vomiting. Can irritate skin and eyes, leading to permanent damage. Can irritate nose, mouth, and throat, causing coughing and wheezing. Can irritate lungs, causing coughing and/or shortness of breath; higher exposures can cause a build-up of fluid in the lungs. If combined with chlorine, it can produce toxic chloramine gas.	<b>Acute health effects:</b> Can irritate the eyes, nose, and throat, causing tearing, coughing, and bloody nose. Inhalation can irritate the lungs, causing coughing, shortness of breath, and chest pain; exposures at higher levels can cause a build-up of fluid in the lungs. Direct contact can severely irritate and burn the eyes and skin, causing permanent damage. If combined with Ammonia or acids (i.e. vinegar), it can produce toxic gases.
<b>Chronic health effects:</b> Repeated exposure can cause chronic irritation of the eyes, nose, throat, and lungs. Repeated exposures may cause bronchitis, with cough, phlegm, and/or shortness of breath.	<b>Chronic health effects:</b> Repeated exposures may cause bronchitis with cough, phlegm, and/or shortness of breath, and may permanently damage the lungs. Long-term exposure can damage the teeth and cause a skin rash.

Cleansers typically carry labels that read CAUTION eye or skin irritant, use in a well-ventilated area. A shower or bathroom stall is hardly a well-ventilated area. It should not surprise us that the EPA states that, "In the last several years, a growing body of scientific evidence has indicated that the air within homes and other buildings can be more seriously polluted than the outdoor air in even the largest and most industrialized cities"<sup>2</sup>. People spend most of their time indoors therefore, it is imperative that we maintain good indoor air quality.

Reading the labels on products before we purchase them is a must. Labels help us decide whether to purchase the cleanser and can teach us how to use it properly. The Cancer Prevention Alert publishes a list called *Hazardous Ingredients in Household Products*<sup>3</sup> that is very useful in deciphering the ingredients. Here are the definitions the EPA uses:

- **Danger** is the strongest signal word. If a label has the word Danger on it, you must be extremely careful using the product. If it is not used properly, it can be hazardous to your health. Danger is also used on products that can explode.
- **Warning** is not as severe as Danger, but it still means that the product is hazardous to your health if not used properly. Warning is also used to identify that which can easily catch on fire.
- **Caution** shows that the product could hurt you, but it is less harmful than products having a danger or warning signal word. Caution is used on products that cause symptoms such as runny nose, itchy eyes, scratchy throat, headaches, fatigue, dizziness, skin rash, and respiratory infections.

I am sure you are familiar with chocolate and peanut butter smeared windows with the fingerprints of the guilty party. However, wouldn't you prefer to have your child stick their tongue on that, rather than lick chemical residues off a window just cleaned with an ammonia-based household cleanser? I am not suggesting that you leave your house dirty, but that you consider using cleaning products that will not harm you or the environment. Toxic chemicals in the home

also pose a risk for accidental poisoning of children and pets. In 1990, more than 4,000 toddlers under age four were admitted to hospital emergency rooms as a result of household cleanser-related injuries<sup>4</sup>.

A report published by the Environmental Defense Fund in 1997<sup>5</sup> states that The American Academy of Sciences' Research Council concluded that 78% of commercial chemicals in the U.S. lacked even "minimal toxicity information". According to the U.S. Environmental Protection Agency (EPA), only a fraction of the more than 75,000 registered chemicals has gone through complete testing for human health concerns<sup>6</sup>. Some chemicals have immediate toxic effects. Others are toxic to our bodies only after repeated long-term exposure.

North Dakota, Minnesota, New York and many other states include information on their government websites on alternatives to hazardous cleansers. I have been using several alternatives for household cleansers for the past six months and I am very pleased with the results. I located these recipes after becoming motivated through frustration over some of the products I was using. Here are a few recipes for non-toxic or low toxicity cleansers<sup>7,8</sup>.

#### RECIPES FOR LESS TOXIC CLEANERS

<p><b>Disinfectant and mold Inhibitor</b> In a hand spray bottle, mix 1 tsp. borax and 3tbs. white vinegar with 2 cups of hot water or In a 32 oz spray bottle place 1/4 cup borax, fill the rest with water Don't rinse away the borax solution. Borax or Hydrated sodium borate is a natural, low toxicity mineral.</p>	<p><b>Glass Cleaner</b> 1 quart warm water 1/4 cup white vinegar (or 2 tablespoons lemon juice) Mix ingredients and store in a spray bottle. Dip a wet sponge in baking soda to clean a glass oven door.</p>
<p><b>Toilet Bowls</b> In a 32 oz spray bottle 1/4 cup borax water Or, sprinkle baking soda around the bowl and wait a few minutes. Pour in white vinegar and scrub with a toilet brush. Vinegar is a mild acid and should remove any hard water scale.</p>	<p><b>All-Purpose Cleaner</b> 1-quart warm water 1 tsp liquid soap 1 tsp borax 1/4 cup undiluted white vinegar Mix ingredients and store in a spray bottle. Use for cleaning countertops, floors, walls, carpets and upholstery.</p>
<p><b>Kitchen Counter Tops wood cutting Boards</b><sup>9, 10</sup> Spray with 3% hydrogen peroxide Spray with full strength vinegar (5%)</p>	<p><b>Lime Deposits Remover</b> Make paste from cream of tartar and hydrogen peroxide. Let it stand for several hours before removing scale. You may have to apply several times.</p>
<p><b>Mildew Remover</b> Equal parts of vinegar and salt</p>	<p><b>Soap Scum Remover</b> Use baking soda</p>

We pay more than the sticker price when we use harmful cleaners. We suffer a reduction in the air quality in our homes and the accumulation of toxins in our environment. There are safe alternatives to most cleaning products that even our kids can use. So, what are we waiting for, we have kids to hire!

#### Texas PTA supports the health of all Texas Children.

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1 New York City Waste Less, <http://www.nycwasteless.org/gov/toxics.html#airfreshener>

2 EPA <http://www.epa.gov/ttn/atw/hapindex.html>  
Health Effects Notebook for Hazardous Air Pollutants

3 Cancer Prevention Coalition [http://www.preventcancer.com/consumers/household/carcinogens\\_home.htm](http://www.preventcancer.com/consumers/household/carcinogens_home.htm)

4 Cancer Prevention Coalition, <http://www.preventcancer.com/press/pdfs/hazardous.pdf>  
Hazardous ingredients in Household Products

5 Environmental Defense Fund [http://www.environmentaldefense.org/documents/243\\_toxicignorance.pdf](http://www.environmentaldefense.org/documents/243_toxicignorance.pdf)  
Toxic Ignorance 1997

6 Minnesota Office of Environmental Assistance, <http://www.moea.state.mn.us/campaign/toxics/index.html>

7 Ecomall, <http://www.ecomall.com/greenshopping/tac2.htm>

8 Make the Connection Health & Environment, <http://www.herc.org/maketheconnection/docs/Volume1.pdf>

9 Food Safety News August 1999 published by the Cooperative Extension Service, US Department of Agriculture, University of Kansas. <http://www.oznet.ksu.edu/ansi/nletter/fs/99/fs9908.pdf>

10 Science News Online September 28, 1996, [http://www.sciencenews.org/pages/sn\\_arch/9\\_28\\_96/food.htm](http://www.sciencenews.org/pages/sn_arch/9_28_96/food.htm)