

# the **Ultimate Guide** to **Natural Cleaners**



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# INTRODUCTION

Thank you for downloading this report on how to rid your home of toxic chemicals. It is inspired by the work of Dr. Hulda Clark with her own cleaning recipes and some of mine thrown in.

Dr. Hulda Clark was a pioneer in the shift from using chemical home cleaners towards a TOXIN-FREE home. She documented the relationship between freedom from pain and disease, and ridding yourself and your home of toxins. Having spent her life searching for the keys to disease, and helping sick people get well, she was fearless in her pursuit. Her essential work exposed the dangers of “modern” chemicals to the human body despite facing severe opposition and paying a high personal cost.

Her motto was 'Self Health', self-discovery and self-education. She said people must take control of their own homes and lives. She could not do it for them, like some magic pill.

I refer to Dr. Hulda Clark's books like reference manuals, trying to apply the knowledge that I have gained, and understanding the principles of making good non-toxic decisions. In her books like *The Cure for All Diseases* you learn that reading labels is not enough. You begin to understand the manufacturing process of foods and know what chemicals are likely to be found in packaged and processed foods. You learn that almost every commercial cleaning product found on store shelves is toxic.

Protecting the environment was not Dr. Clark's goal or concern, but we now know it became a direct outcome of her discoveries. She was years ahead of her time, and the world is still catching up to her amazingly extensive research and vast knowledge.

## FOCUS OF THIS REPORT

This report is all about DIY Cleaning with LESS. I consider myself to be a FRUMP (Frugal, Resourceful, Unpretentious, Mature, Person). The idea of using less, freeing up cupboard space, living with less clutter, while also being creative and simple is quite appealing to me. The invisible leash to the 'cleaning' aisle of the store has been cut, as now I walk right by it without a thought. Truthfully, the strong noxious smells are partly to blame, but I just do not need more commercial cleaning products.

By using Hulda Clark's cleaning methods, I feel like I am giving a gift to my family and everyone that comes into my house. I give them a gift of caring, intentionally reducing chemical exposure and toxic load in the home, making it a safe place. I give them the gift of time taken to make and use safe products, and the gift of love where I choose to invest in the health and wellness of everyone in my home.

This Toxin-Free Home Cleaning Report focuses on Dr. Clark's main natural cleaning solutions. I have condensed the home cleaning instructions from Dr. Hulda Clark's books into this handy reference guide.

At the very end of this report, I share some safe and effective commercially available products that I use from time to time. They have passed the rigorous toxicity tests of Dr. Hulda Clark.

Here are some advantages of using Hulda Clark's home cleaning methods. They are:

- Child friendly
- Pet friendly
- Environmentally friendly
- Budget friendly
- Versatile, easy, efficient
- Part of the Hulda Clark Action Plan

How can you separate out the poisons you handle or breathe vs. those you lather on your body? There are toxins in the kitchen cupboards (canned, packaged and prepared goods), toxins in the bathroom cupboard (cosmetics and toxic body products), and toxins in the garage (car and house maintenance chemicals) plus more.

Find out where toxins are hiding in your home. Identify your own exposure and reduce the load by making serious changes in your lifestyle.

For the purposes of this report I have restricted my Cleaning Chart to house cleaning products only.

## WHO CAN BENEFIT FROM THIS REPORT?

Anyone with the following conditions will benefit from toxin-free cleaning solutions:

- allergies
- sensitivities to mold, fragrances, chemicals
- liver problems,
- lung or respiratory problem
- immune system disorder or breakdown,
- eczema or any skin condition,
- cancer,
- diabetes,
- inflammatory disease of any kind,
- or anything that ends with “itis”?
- Families with small children
- brain or cognitive disorder
- neuromuscular disease

We can ALL benefit from a toxic load reduction. Our families can benefit from going back 100 years in our household chemistry to experience a cleaner life with less harm to the environment.

# HEADS UP!

## TOXIC CHEMICALS ARE LURKING IN EVERYTHING

This list is excerpted from Dr. Clark's book "The Cure for All Diseases" 1995 edition by New Century Press, shows that home cleaning products are not the only culprit. Toxic chemicals are all around us, so identify them, remove them, and find a way to live without them.

**Aluminum:** in "natural" deodorant advertised as aluminum-free, in salt, in cans, in walkers for the elderly, in lotions

**Arsenic:** ant and roach hives, grains of pesticide, in carpet & furniture "treated" for stain resistance, and in wallpaper

**Asbestos:** in hair blowers, in radiator point, in clothes dryer belts

**Barium:** in lipstick, bus exhaust

**Benzalkonium** and **Zirconium:** in tea bags, in deodorant, in toothpaste, in mouthwash, in cosmetics

**Beryllium:** in hurricane lamps, in lawn mowers, in kerosene

**Bismuth:** in cologne and stomach aids

**Cesium:** in clear-as-glass plastic, after running through long plastic hose

**Cobalt:** in laundry detergent, dishwasher detergent, in skin bracer and in mouthwash

**Antimony:** in eye liner

**Cadmium** and **Copper:** in water running through old metal pipes

**Chromium:** in eyebrow pencil, in water softener salts

**CFC's (Freon):** in refrigerators, in air conditioners, in spray cans

**Dysprosium** and **Lutetium:** in paint, varnish, shellac

**Fiberglass:** from insulation behind holes in ceiling or uncovered outlets, water heater jackets, stuffed around fans and air conditioners, insulation

**Formaldehyde:** in foam mattresses, in new clothing, in paneling, in foam chairs

**Hafnium:** in nail polish and hair spray

**Holmium:** in hand cleaners

**Lanthanum:** in duplicator and copier ink

**Lead:** in men's hair color restorer, in solder at joints of copper pipes

**Mercury and Thallium:** in tooth fillings, sanitary napkins, cotton balls, dental floss, toothpicks, cotton swabs

**Nickel:** in metal jewelry worn on the skin, in metal glasses frames, in metal watch bands, in metal tooth fillings and retainers

**PCB's:** in regular and health store detergents

**Praseodymium, Niobium, Neodymium, Yttrium:** in prescription drugs and over-the-counter drugs

**Radon, Uranium, Thorium:** in crawlspace without open vents, in holes and cracks in basement

**Rhenium:** in spray starch

**Thulium:** in most brands of Vitamin C Dr. Clark tested

**Tin and Strontium:** in toothpaste

**Titanium:** in face powder and other powders, and in metal dental ware

**Tungsten:** corroded rod in electric water heaters, in electric frying pans, in hair curlers, in toasters, in tea kettles

**Vanadium:** in leaks in pipes to gas stove, furnace, water heater, in diesel fuel, in candles (even when they're not burning)

**Ytterbium, Erbium, Terbium:** in plastic tooth fillings, in vitamins and supplements, in foil packaging

Dr. Clark says that Freon (chlorinated fluorocarbons or CFC's) is the top health hazard in the home, and is found in old refrigerators. Fiberglass (found in home insulation), is found in many tumors, so it must be avoided. Asbestos (found in the home clothes dryer belts and imported hair dryers) is also toxic. Wallpaper, wall panelling give off arsenic and formaldehyde, which should be removed.

Formaldehyde is also emitted from foam furniture, new clothing, and it is in the sizing used to make new clothes smooth. Wash all new clothes before wearing them.

I remember when we began detoxifying our home from chemicals, we did not buy new carpets, new furniture, or install wallpaper. We were ruthless with all existing chemicals, removing them

from the house. We were careful with all new items we brought back in, and checked with the book to make sure everything was safe!

I often refer to this great resource: [The Environmental Working Group Cleaners Hall of Shame](#) listing toxic cleaning products you buy in North American grocery stores.

(<http://www.ewg.org/guides/cleaners>)

# MORE TOXIC THAN THE TOILET

## the biggest culprit of all!

Dr. Hulda Clark identified one of the biggest culprits in the entire house: the common kitchen dishcloth.

“Once a day, sterilize the sponge or cloth you use to wipe up the table, counter tops and sink. This little piece of contaminated cloth is the most infectious thing in the house, besides the toilet. It's more dangerous than the toilet because you do not suspect it. Sometimes it has a slight odor at first, which may warn you, but most pathogens do not have an odor! As we wipe up droplets of milk, we give the milk bacteria, Salmonellas and Shigellas, a new home to multiply and thrive in. We add crumbs, picking up molds this way. We add dust, picking up parasite eggs and stages. They all feed on the milk and food residue.

As the counter and table and stove get wiped “clean” a film of contamination is left everywhere. A few varieties may die but most of them don't. The general moisture in the kitchen is enough for them to survive. The cloth or sponge recolonizes the kitchen and dining room table several times a day.

No doubt, the last thing you do before leaving the kitchen is squeeze it dry with your hands. Now all the pathogens are on your hands!

Where do your fingers go? To your mouth to remove a hull or bit of something from your teeth. Or to eat a last bite of something. Or to turn a page of the telephone directory. You have just eaten a culture sampling of your own kitchen sponge. In two hours, they are already multiplying in the greatest culture system of all: your body! You have given yourself your next sore throat, cold or headache. The worst possible habit is to wipe a child's face and hands with the kitchen cloth. Or to have a handy towel hanging from the refrigerator handle.” p. 399-400 The Cure for All Diseases.

See section in “Kitchen, Dish Cloth” below for instructions on sterilizing the Dish Cloth.

# 1

## HOW TO GET STARTED

Here are some quotes from *The Cure for All Diseases*, which give you an idea of how to begin cleaning up your home. This protocol is to detoxify the home and enable a sick person to recover without the hindrances of toxic chemicals.

“To clean the house, start with the bedroom. Remove everything that has any smell to it whatever, candles, potpourri, soups, mending glue, cleaners, repair chemicals, felt markers, colognes, perfumes, and especially plug-in air “fresheners”. Store them in a garage, not a basement.” p.448

“Next clean the kitchen. Take all cans and bottles of chemicals out from under the sink or in a closet. Remove them to the garage. Keep only the borax, washing soda, white distilled vinegar and homemade soap. Use these for all purposes. ....Remove all cans, bottles, roach and ant killer, moth balls, and chemicals that kill insects or mice. These should not be stored anywhere. They should be thrown out. Remember to check the crawl space, attic and closets for hidden poisons also.” p.448

“Remove all cans and bottles of “stuff” from the bathroom. Leave only the borax soap, homemade soap, and grain alcohol antiseptic. Toilet paper and tissues should be non fragranced, uncolored. All colognes, after shave, anything you can smell must be removed. Family members should buy non fragranced products. They should smoke outdoors, blow-dry their hair outdoors or in the garage, use nail polish and polish remover outdoors or in the garage.” p.449

## THE 3 SECRET CLEANING PRODUCTS!

Dr. Clark's three main cleaning products are **Baking Soda**, **Vinegar**, and **Borax**. Use my handy chart to help you get the most from these simple and inexpensive products. The areas highlighted in blue are the “Hulda Clark” recipes, and the other ones are solutions I and others have used over the years.

## Washing Soda

Washing soda (sodium carbonate) is a chemical neighbor of baking soda (sodium bicarbonate) but is much more strongly alkaline, with a pH around 11. It is quite caustic (acid), but still safe and non-toxic. It is a good grease cutter and also softens water. It does not dissolve in water as well as baking soda, so when washing laundry, rinse your clothes well, especially babies diapers. Use gloves when using washing soda.

Baking soda is  $\frac{1}{2}$  as strong as washing soda, dissolves better in water, but doesn't have the same de-greasing power as washing soda.

Dr. Clark strongly recommends these products because they are much safer than commercial solvent formulas. Do not use it on fiberglass, aluminum or waxed floors.

## Borax

“Borax was the traditional pioneer soap. It is antibacterial and can be made into a solution. It is also a water softener and is the main ingredient in non-chlorine bleach. Borax can remove grease, too, and some stains. But even Borax is not natural to your body and it is therefore wise to use as little as necessary.” p.438  
The Cure for All Diseases

Borax is not boric acid (used in ant killer). Borax, or sodium tetraborate, is a natural mineral similar to baking soda. It is mined from the earth in large open pit mines. As Dr. Clark herself says, it is not natural to your body.

I have used Borax for many years as we have followed Dr. Clark's cancer protocol. Borax is known for it's usefulness in the laundry room, the bathroom, the kitchen, and especially for odor control anywhere in the house.

The brand that Dr. Hulda Clark recommended was 20 Mule Team. <http://www.20muleteamlaundry.com/about/other-uses/>

## Vinegar

White distilled vinegar is non-toxic and friendly for the environment, making it a wise alternative to chemical cleaners. Vinegar is very economical when you buy it in large jugs, and it is so versatile. We use it in everything from a fruit-veggie soak to cleaning windows. Vinegar is acidic, so it helps with cleaning out mold and germs in the bathroom, dissolving mineral deposit buildup in the kitchen and bathroom, and even good with pet cleanup. But don't use it on marble countertops because it can damage the marble. Vinegar removes stale and bad odors wherever you use it – in the refrigerator, walls, wood, children's toys, around animals, in the garage, etc.

Vinegar is easy to find in other countries of the world. Dr. Clark was so practical and frugal in her ways, so it's not surprising that she chose Vinegar in her cleaning trio.

Optional: Hydrogen Peroxide

Dr. Hulda Clark has not included this in her official cleaning trio. However, since she has recommended it for teeth brushing and as a mouthwash, and since it is such a good cleaning addition to the home, I am including it here.

**Note:** Dr. Clark has special sources for Hydrogen Peroxide if you are going to use it internally) For household cleaning purposes, I have used the pharmacy grade of hydrogen peroxide.

The cleaning ideas presented here are for the DIY people, and those committed to non-toxic methods of household cleaning. Find out what works for you.

- Make spray bottles and jars of working solutions for yourself and label them. From experience, I can tell you that you will not remember what they all are! So be organized and label everything you make!
- The official Hulda Clark recommendations from *The Cure for All Diseases* are highlighted. All other are ones I have personally used or have seen recommended.
- For some tasks, you will see a few different approaches under the one task category (e.g. countertops). Choose products and methods that work for you with items you have on hand. Experiment and make your own recipes like me!!!

# ROOM-BY-ROOM CLEANUP CHART

## KITCHEN

(Hulda Clark recipes are highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Air Freshener</b>		
<b>BBQ Grill</b>	Baking Soda	Sprinkle Baking Soda on the grill, then scrub with water and bristle brush.
<b>Countertops</b>	Hydrogen Peroxide	Hydrogen Peroxide is great for disinfecting countertops. Spray onto counters, let sit and wipe clean.
	Lemon & salt	To clean countertops and remove stains (including laminate and stone countertops), apply salt to the cut side of a lemon and scrub. Rinse and dry. Note: Do not use white distilled vinegar on marble countertops as acid can damage it.
<b>Cutting Board</b>	Baking Soda	Deodorize the Cutting Board by sprinkling the cutting board with baking soda, scrub, rinse.
	Lemon Juice	Wash with lemon juice and let it dry in the sun
	Vinegar	Wipe with full strength white distilled vinegar

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
Dish Cloth	50% solution of grain alcohol, or Boil the cloth.	Sponges and Dish cloths harbor Salmonella. Once a day sterilize the sponge or cloth you use at the kitchen sink. Keep 50% solution of grain alcohol in a wide-mouth glass quart jar, used specifically for the dish cloth each day. Clean and dry for 3 full days before reusing.
Dish Cloth	Microwave	Microwave the wet dish cloth for 3 minutes.
	Dishwasher	I also recommend putting the sponge or cloth in the dishwasher to sterilize the cloth, especially using the drying cycle.
Dishes	Borax	Use ¼ cup borax and add a minimum of water. Also keep a bit of dry borax in a saucer by the sink for scouring. Don't use any soap at all for dishes that aren't greasy and can be washed under the faucet with nothing but running water.
Dishwasher	Borax and Vinegar	Use 2 tsp borax powder pre-dissolved in water. If you use too much it will leave a film on your dishes. Use Vinegar in the rinse cycle.
	Borax/Baking Soda	Mix equal parts of borax and baking soda for a dishwashing detergent.
	Lemon Juice	Place ¼ cup of lemon juice in the soap dispenser and run through the normal cycle. To sanitize your dishwasher and remove mineral deposits and odors, remove all dishes. Your dishwasher will be clean and smell wonderful!

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
	Hydrogen Peroxide	Apply, let it soak, and wipe clean.
<b>Drain Cleaner</b>	Baking Soda	Pour 1/2 cup of baking soda into the drain, followed by 2 cups of boiling water.
	Baking Soda	For a weekly flush, put 4 tablespoons of baking soda in the drain. Flush it down with hot water.
	Baking Soda/Vinegar	To open up a partially clogged drain, pour a half cup of baking soda into it. Follow this with a cup of vinegar. Allow the solution to bubble for several minutes, then run hot water down the drain.
<b>Drain Freshener</b>	Vinegar	Pour a cup of white distilled vinegar down the drain once a week. Let stand 30 minutes and then flush with cold water.
<b>Floor Cleaner</b>	Washing Soda/Vinegar	Use washing soda from the grocery store. You may add borax and boric acid (to deter insects except ants). Use white distilled vinegar to rinse for a natural shine and ant repellent. Do not add bleach to this.
	Baking Soda	Baking Soda can remove scratches and crayon marks from vinyl floors.
	Baking Soda	Wash the floor with ½ cup baking soda in a bucket of water. Mop and rinse clean for a sparkling floor. Spot clean areas with scuff marks using baking soda on a clean damp sponge and rinse.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Garbage Can</b>	Baking Soda	Sprinkle baking soda in the garbage can as a deodorizer.
	Borax	Sprinkle 2 tbsp of borax in the garbage bag to neutralize odors.
<b>Garbage Disposal</b>	Lemon Rind/Ice	Grind ice and used lemon or orange in the garbage disposal.
<b>Greasy Pots</b>	Paper Towel	Use a paper towel first. Then use homemade bar soap.
	Baking Soda	Baking Soda helps cut the grease.
	Borax	Make a paste of borax and water. Use this paste to cut grease or as a soak for baked on food.
<b>Marble Countertops</b>	Baking Soda	3 tbsp baking soda to 1 qt of warm water. Use a soft cloth to clean and rinse.
<b>Microwave Cleaner</b>	Vinegar	Boil a solution of 1/4 cup of white distilled vinegar and 1 cup of water in the microwave. Will loosen splattered on food and deodorize.
<b>Mineral Deposits</b>	Vinegar	Soak paper towels in vinegar. Apply the paper towels to the lime deposits around the faucet. Leave them on for approximately one hour. The deposits will be softened and can be removed easily.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Mold/Mildew</b>	Hydrogen peroxide	Use Hydrogen Peroxide in a spray bottle. Label well.
		Also see Mildew Remover in the Bathroom Section.
	Borax	Mix 1/2 cup of borax (natural mineral that kills mold and bacteria) with 1 gallon hot water. Add a few sprigs of fresh thyme. Steep for 10 minutes. Strain and cool. Store in a recycled plastic spray bottle.
<b>Oven Cleaner</b>	Baking Soda & Water	Make a paste with baking soda and water and lather it inside your stove. Leave it overnight. Clean it the next day.
<b>Refrigerator Clean</b>	Baking Soda	Clean the fridge with Baking Soda and leave an open jar with baking soda as a deodorizer.
	Hydrogen peroxide	Apply, let it soak, and wipe clean.
	Borax	Wash the refrigerator with the Borax/Water solution (see Recipe Section). Cleans and deodorizes.
<b>Refrigerator Odor</b>	Apple Cider Vinegar	Place 1 cup apple cider vinegar in a glass and set in refrigerator. Let it sit for 2 days for smells to be gone.
<b>Silver Polish</b>	Toothpaste	Clean silver with toothpaste and warm water using an old soft bristled toothbrush. Soak silver in salted water in an aluminum container. Then wipe it clean.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
	Baking Soda	3 parts baking soda to 1 part water. Clean using a soft brush and cloth. Rinse with water.
	Aluminum Foil, Boiling Water, Baking Soda and Salt	Line your sink with aluminum foil and drop in tarnished silver. Pour in boiling water, a cup of baking soda and a dash of salt. Let sit for a few minutes. The tarnish will transfer from the silver to the foil.
<b>St. Steel Cleaner</b>	Vinegar	Dip soft cloth in undiluted white vinegar. Wipe surface.
	Olive Oil	Rub with olive oil to remove streaks
	Borax/Lemon Juice	Make a solution with 1 cup borax with ¼ cup lemon juice. Use to clean Stainless and Porcelain sinks.
<b>Vegetable Wash</b>	Baking soda	Mix a 1/4 cup of baking soda in a sink full of water. Wash your fruits and vegetables in the solution, then rinse with clean water. Removes dirt and insecticides from your fresh produce.
	Vinegar	Add 2 tablespoons white distilled vinegar to 1 pint water and use to wash fresh fruits and vegetables, then rinse thoroughly. Research has shown that vinegar helps kill bacteria on fruits and vegetables.

# BATHROOM

(Hulda Clark recipes highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS FOR USE</b>
Denture Cleaner	Baking Soda	Soak oral appliances, like retainers, mouthpieces and dentures, in a solution of 2 teaspoons baking soda dissolved in a glass or small bowl of warm water. The baking soda loosens food particles and neutralizes odors to keep appliances fresh. You can also brush appliances clean using baking soda and water.
Disinfect	Borax	Mix 1/2 cup of borax (natural mineral that kills mold and bacteria) with 1 gallon hot water. Add a few sprigs of fresh thyme. Steep for 10 minutes. Strain and cool. Store in a recycled plastic spray bottle.
Floor Cleaner (HC)	Bleach water	For the bathroom floor use plain bleach water – follow the label. Never use chlorine bleach if anybody in the home is ill or suffers from depression.
	Grain Alcohol	Use grain alcohol (1 pint to 3 quarts water) for germ killing action instead of chlorine.
Hair Rinse	Water/Citric Acid	Mix ¼ tsp citric (not ascorbic) acid crystals with 1 pint of water. Rinse your hair thoroughly from the borax with water. Rinse with Citric Acid Solution. For longer hair use a quart of rinse solution. Citric Acid is necessary to remove the borax from your hair – lemon and vinegar are not strong enough. Feel free to rinse your whole body with this solution.
Hair Rinse	Vinegar	I put 1-2 oz vinegar in a cup, add warm water and rinse your hair in the shower. Great after the baking soda shampoo. Make sure to rinse your hair well and avoid getting vinegar get into your eyes. My personal choice of hair rinse.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS FOR USE</b>
<b>Mildew Remover</b>	Vinegar/Lemon Juice	Spray with lemon juice or vinegar. Let it sit for a few minutes and then scrub using a brush.
	Lemon juice and salt	Apply to affected area, let it sit for a few minutes and scrub clean using a brush. Alternately, try white vinegar and salt.
	Vinegar & Borax	Dissolve 1/2 cup of vinegar with 1/2 cup borax in warm water. Apply to affected area, let it sit for a few minutes and clean with a brush and cloth. Mix the ingredients fresh for each use.
<b>Odor Reducer</b>	Candle or Match	We light a candle or light to match to neutralize odors. Not sure if this is an old wife's tale, but it works for us.
<b>Shampoo</b>	Borax Liquid	Borax liquid is ready to use as shampoo. It does not lather but goes right to work removing sweat and soil without stripping your color or natural oils. It inhibits scalp bacteria and stops flaking and itching. Just a few squirts does it.
<b>Shower Tile Cleaner</b>	Baking Soda	Use the dry baking soda on a damp cloth and scrub.
<b>Shower doors</b>	Vinegar	Rub down shower doors with a sponge soaked in white distilled vinegar to remove soap residue.
<b>Soap</b>	Homemade Soap	See recipe in Recipe Section
<b>Tile grout</b>	Lemon Juice	Clean the tile grout with lemon juice, and scrub with a toothbrush and a little water. Rinse. Alternately use baking soda with a toothbrush.
<b>Toilet Bowl Cleaner</b>	Baking Soda	Add ½ – 1 cup Baking Soda to the toilet bowl. Let it sit for an hour. Use the toilet bowl brush to clean the bowl. Baking Soda helps with odor reduction also.
	Vinegar	Stubborn stains can be removed from the toilet by cleaning with white distilled vinegar and brushing vigorously. The bowl may be deodorized by adding 3 cups of white distilled vinegar. Allow it to remain for a half hour, then flush.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS FOR USE</b>
	Borax	Make a paste of Borax and water. Use the toilet brush and Borax paste to scrub the toilet bowl. I have also used a foam sponge/scrubber to clean the stain ring in the toilet. From time to time I also use a bleach treatment for the toilet bowl.
<b>Toilet Bowl Rust</b>	Borax/Lemon Juice	Make a paste of borax and lemon juice and apply it to the stain with a scrub brush or sponge. Let it sit for up to two hours, then scrub away.

# LIVING ROOM

(Hulda Clark recipes highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS FOR USE</b>
<b>Carpet Cleaner</b>	Water with Rinse	See Recipes Section below.
<b>Furniture Duster</b>	Vinegar & Water.	Mix equal parts white distilled vinegar and water. Put it in a spray bottle.
<b>Furniture Polish</b>	Olive Oil	A few drops of olive oil on a dampened cloth. Use filtered water to dampen.
	Lemon & Olive Oil	Mix the juice of one lemon, one teaspoon of olive oil and a teaspoon of water. Apply a thin coat to furniture and buff to shine. Make this fresh each time you do cleaning.
	Olive Oil & Vinegar	Use a mixture of 2 tbsp. olive oil, 1 tbsp white vinegar and 1 quart of warm water. Spray on and wipe dry.
	Olive Oil & Vinegar	Mix equal parts of olive oil and vinegar and polish with a soft cloth. Try in an inconspicuous place first.
<b>Pet Stains</b>	Vinegar	Test the color fastness of the carpet with white distilled vinegar in an inconspicuous place. Then sprinkle distilled vinegar over the fresh pet accident. Wait a few minutes and sponge from the center outward. Blot up with a dry cloth. This procedure may need to be repeated for stubborn stains.
<b>Water Marks on Wood</b>	Vinegar & Olive Oil	Rub the piece of furniture with equal parts vinegar and vegetable oil to remove them. Make sure to rub with the grain.
<b>Windows</b>	Vinegar	2 tbsp white distilled vinegar to 1 gallon of water. Clean windows using spray bottle with vinegar water.
<b>Wood Floors</b>	Vinegar	Mix ¼ cup vinegar with 4 cups water. Wash your floors using this solution.

# LAUNDRY ROOM

(Hulda Clark recipes highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Laundry Soap</b>	Borax	½ cup borax per load.
	Washing Soda	It is the main ingredient of non-chlorine bleach and has excellent cleaning powder without fading colors.
<b>Fabric Softener</b>	Vinegar	Adding a cupful of <a href="#">vinegar to the rinse cycle</a> of your washing machine can freshen up bright colors and give you cleaner laundry. Acetic acid won't harm fabrics, but it dissolves the soap residue that can dull dark clothing. It also acts as a fabric softener, a static reducer, and a mildew-inhibitor.
<b>Bleaching Laundry</b>	Chlorine Bleach	Use original chlorine bleach (not "new improved" or "with special brighteners") for occasional use only. Don't use chlorine if there is an ill person in the house.
	Pre Laundry Soak	Presoak soiled laundry for 30 minutes before washing.
<b>Bleaching Laundry that cannot be bleached</b>	Lemon Juice	Pour ¼ – ½ cup lemon juice in the washing machine.
<b>Chocolate Stains</b>	Club Soda/Milk	Before washing, soak in club soda. Rub shortening into stain and wash, or apply milk to stain to keep from setting.
<b>Collar Dirt</b>	Homemade Bar Soap.	For stubborn dirt on the collars, scrub with homemade bar soap first. (See recipe below)
<b>Diaper Wash</b>	Baking Soda	Washing diapers with baking soda can help to remove odors and wash the diapers and is less harsh on baby's skin than borax.
	Baking Soda	Dissolve 1/2 cup of baking soda in 2 quarts of water and soak diapers thoroughly.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
	Vinegar	Use a cup of vinegar in two gallons of water in the diaper pail to <b>neutralize the urine in cloth diapers</b> . It also helps keep them from staining.
<b>Perspiration Stains</b>	Vinegar or Lemon Juice	Spot stains with white vinegar or lemon juice, or soak in water with two dissolved aspirins.
<b>Rust Stains</b>	Lemon Juice	Scrub with lemon juice mixed with salt.
<b>Stains</b>	Grain alcohol, vinegar, baking soda.	

## BEDROOM

(Hulda Clark recipes highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS FOR USE</b>
<b>Leather Shoe</b>	Banana Peel	Polish leather shoes with the inside of a banana. Buff.
<b>Mothball Alternative</b>	Herb Mix	½ lb each rosemary and mint, ¼ lb each tansy and thyme, 2 tbsp powdered cloves. Mix together and scatter in trunks and bags containing furs and woolens.
	Cedar or Lavender	Cedar chips or dried lavender.
<b>Urine Odor on a Mattress</b>	Borax	Spray mattress with the borax solution or a wet cloth with borax, let it dry and then vacuum up the residue.

# MISCELLANEOUS BUG & PEST CLEANERS

(Hulda Clark recipes highlighted)

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Insect Killer</b>	Boric acid powder (not borax)	Throw liberal amounts behind stove, refrigerator, under carpets and in carpets. Since boric acid is white you must be careful not to mistake it for sugar accidentally. Keep it far away from food and out of children's reach. Buy it at a farm supply or garden store. It will not kill ants.
<b>Ant Repellent</b>	Vinegar	Spray 50% white distilled vinegar on counter tops, window sills and shelves and wipe, leaving residue. Start early in spring before they arrive, because it takes a few weeks to rid yourself of them once they are established.
	Lemons	If you want immediate action, get some lemons, cut the yellow outer peel off and cover with grain alcohol in a tightly closed jar. Let stand at least one hour. Use 1 part of this concentrate with 9 parts water in a spray bottle. Mix only as much as you will use because the diluted form loses potency. Spray walls, floors, carpets where you see them. The lemon solution even leaves a shine on your counters. Use both vinegar and lemon approaches to rid yourself of ants.
	Vinegar	Wash counters, floors, etc with a mixture of equal parts of vinegar and water. Use vinegar on your kitchen cloth to leave a residue that ants will not like. Do this regularly.
	Baking Soda/Salt	Keep them out by mixing up equal parts of baking soda and salt together. Sprinkle the mixture wherever you see the ants enter.
	Borax/Sugar	Mix equal parts of borax and sugar to attract and kill ants.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Bed Bugs</b>	Borax	Sprinkle borax on the mattress, let it sit for an hour and then vacuum it up.
<b>Cockroaches and other insects (not ants)</b>	Boric Acid	Sprinkle handfuls of boric acid (not borax) under your shelf paper, behind sink, stove, refrigerator, under carpets, etc.
	Borax	Mix equal parts of borax and sugar to attract and kill cockroaches.
<b>Fleas &amp; Ticks</b>	Vinegar	Add 1 tsp of vinegar to 1 quart of water per 40 pounds of pet weight. Feed your pet garlic.
	Borax	Sprinkle borax on the carpet or flea-infested area. Leave it for an hour and then vacuum up.
<b>Flies</b>	Egg Yolk, Molasses, Ground Black Pepper	Beat an egg yolk with 1 tbsp of molasses and finely ground black pepper. Set this mixture out in shallow plates.
<b>Fruit Flies</b>	Clove Spray	Grind up cloves in a coffee grinder. Add approx. 2 tbsp ground cloves to 2 cups boiling water. Filter through a coffee filter and you have your clove water. I tried this after first seeing Dr. Hulda Clark experimenting with her own clove spray for kitchen ants and flies. For a serious case of fruit fly infestation, I recommend the apple cider vinegar trap, next.
<b>Fruit Flies</b>	Vinegar Trap	1 inch of Apple Cider Vinegar in a small glass bowl or cup. Place a sheet of plastic wrap over the top to seal the bowl. With a knife, pierce very small holes in the plastic wrap so the hungry fruit flies can get through, but so they will not get out! This method is very successful in trapping fruit flies. I have seen it in my own kitchen.
		Another method is to get a baggie and snip a very small corner from the baggie. Place the baggie over the cup, secure it with an elastic band. Point the corner with the hole in it down towards the Apple Cider Vinegar. The fruit flies will be eager to get in, but unable to get out.

<b>TASK</b>	<b>PRODUCT</b>	<b>DIRECTIONS</b>
<b>Kitty Litter Box</b>	Borax	Mix 2 Tbsp borax with the cat litter for odor control.
<b>Mice</b>	Borax	Sprinkle borax along walls and outside the perimeter of the house to deter ants.

# DIY HOMEMADE RECIPES

(Hulda Clark Recipes are noted below)

## BORAX LIQUID SOAP

(from "The Cure for All Diseases", p. 532, by Dr. Hulda R. Clark)

- **1 GALLON JUG**
- **1/8 CUP BORAX POWDER**

Funnel the borax into the jug, fill with cold tap water. Shake a few times. Let settle. In a few minutes you can pour off the clear part into dispenser bottles This is the soap!

Keep a dispenser by the kitchen sink, bathroom sink, and shower. It does not contain aluminum, PCB's, cobalt (blue or green granules in detergent) which causes heart disease. Commercial detergents and non-soaps are simply not safe.

Optional Method: Use any bottle, pour borax powder to ½ inch depth, add water and shake. When you have used it down to the undissolved granules, add more water and shake again. Add more borax when the undissolved granules get low.

Borax inhibits the bacterial enzyme urease and is therefore antibacterial. It may even clear your skin of blemishes and stop your scalp from itching.

A smaller Borax spray bottle recipe is: 2 tbsp borax and 2 cups hot water. Use as an all-purpose cleaner in the kitchen and bathroom.

## HOMEMADE SOAP

(From "The Cure for All Diseases", p. 529, by Hulda R. Clark)

A good grease cutter in the kitchen.

- **A SMALL PLASTIC DISHPAN, ABOUT 12" (25 CM X 30 CM)**
- **A GLASS OR ENAMEL 2-QUART (2 LITER) SAUCE PAN**
- **1 CAN OF LYE (SODIUM HYDROXIDE), 12 OUNCES (400G) (DO NOT USE ANY WITH METAL ADDITIVES)**
- **3 POUNDS OF LARD (BHT AND BHA ARE OK HERE)**

- **PLASTIC OR RUBBER GLOVES**
- **WATER**

1. Pour 3 cups of very cold water (refrigerate water overnight first) into the 2-quart saucepan.
2. Slowly and carefully add the lye, a little bit at a time, stirring it with a wooden or plastic utensil. (Use plastic gloves for this; test them for holes first.) Do not breathe the vapor or lean over the container or have children nearby. Above all use no metal. The mixture will get very hot. In olden days, a sassafras branch was used to stir, imparting a fragrance and insect deterrent for mosquitoes, lice, fleas, ticks.
3. Let cool at least one hour in a safe place. Meanwhile, the unwrapped lard should be warming up to room temperature in the plastic dishpan.
4. Slowly and carefully, pour the lye solution into the dishpan with the lard. The lard will melt. Mix thoroughly, at least 15 minutes, until it looks like thick pudding.
5. Let it set until the next morning; then cut it into bars. It will get harder after a few days. Then package.

If you wish to make soap based on olive oil, use about 48 ounces (1.5 liters). It may need to harden for a week.

## LIQUID SOAP

(From "The Cure for All Diseases", p. 530, by Hulda R. Clark)

Make chips from your homemade soap cake. Add enough hot water to dissolve. Add citric acid to balance the pH (7 to 8). If you do not, this soap may be too harsh for your skin.

## CARPET CLEANER

(From "The Cure for All Diseases", p. 542, by Hulda R. Clark)

Whether you rent a machine or have a cleaning service, don't use the carpet shampoo they want to sell, even if they "guarantee" that it is all natural and safe. Instead add these to a bucket (about four gallons) of water and use it as the cleaning solution:

Wash water:

- **1/3 CUP BORAX.**

Rinse water:

- **1/4 CUP GRAIN ALCOHOL**
- **2 TSP BORIC ACID**
- **1/4 CUP WHITE DISTILLED VINEGAR OR 4 TSP CITRIC ACID**

Borax does the cleaning, alcohol disinfects, boric acid leaves a pesticide residue, and the vinegar or citric acid give luster. If you are just making one pass on your carpet, use the borax, alcohol, and boric acid. Remember to test everything you use on an unnoticed piece of carpet first.

## **NATURAL DISINFECTANT – TEA TREE OIL SPRAY**

- **2 CUPS WATER (I USE 3 CUPS)**
- **20-30 DROPS TEA TREE OIL**

Mix 2-3 cups water with 20-30 drops tea tree oil in a spray bottle. Label well. Use for disinfecting kitchen counters. I even add this spray for washing the kitchen and bathroom floors. I even use it for cleaning the toilet. Adds a clean and fresh smell to the house. Tea Tree oil is known as a natural antibacterial disinfectant, an anti-viral and anti-fungal.

**Note:** Dr. Clark talks about a certain type of Tea Tree oil as being polluted. Since the cleaning solution here is not going into your body, in my opinion it is very safe and should be included as a non-toxic household cleaner.

## **GRAPEFRUIT SEED EXTRACT (GSE)**

- **4 CUPS WATER**
- **20 DROPS OF GRAPEFRUIT SEED EXTRACT**

Mix 4 cups of water with 20 – 40 drops of grapefruit seed extract. Put it in a spray bottle and label well. Grapefruit seed extract has many uses, internal and external, using the all purpose spray cleaner as a fruit and veggie wash, for the toilet, cutting board, kitchen counter, toothbrush cleaner, and throat gargle. For a flu/cold remedy put 5-10 drops of GSE concentrate in a glass of water, and drink. It tastes bitter, but I have seen good results using Grapefruit Seed Extract. I never travel to a foreign country without a small bottle of concentrate. The NutriBiotic brand is the one I recommend.

# DIY 'THIEVES'-TYPE OIL RECIPE

This recipe is made from 5 essential oils, and you can adjust the drops to suit yourself. The ingredients in this mixture are antibacterial, antiviral and antiseptic. Excellent to use during flu and virus seasons.

- **20 DROPS CLOVE ESSENTIAL OIL**
- **18 DROPS LEMON ESSENTIAL OIL**
- **10 DROPS CINNAMON BARK ESSENTIAL OIL**
- **8 DROPS EUCALYPTUS ESSENTIAL OIL**
- **5 DROPS ROSEMARY ESSENTIAL OIL**

Combine all oils and store in a dark glass container (such as the amber dropper bottles you can get at the health food store). This makes a small amount but it goes a long way.

Flu and Colds: 5-10 drops in a diffuser to fight flues and colds.

Uses on the body: 20 drops of Thieves Oil blend to 2 Tablespoons of Virgin Coconut Oil. Dilute with a carrier oil for body use e.g. rub on the bottom of your feet, on the upper chest and neck, and any area with aches and pains. Make your own hand sanitizer with a few drops of Thieves Oil in a small spray bottle (1 drop in 1 oz of water).

Cleaning Spray: Mix the following in a spray bottle, shaking up before using. 1 drop of thieves blend per 1 ounce of water. Use for disinfecting any area of the house such as bathrooms and toilets, door handles, areas with mold, areas where animals stay etc.

Air Purifier: Boil a pot of water containing 2-3 drops of thieves alternative oil. Let it simmer. This will help to sanitize the air and reduce airborne bacteria.

Laundry Freshener: Put a few drops in the laundry to freshen and sanitize the load. Here are 2 slightly different Thieves Oil Recipes – you can see there are variations to make your own unique blend.

## Recipe I

- **40 DROPS ORGANIC CLOVE ESSENTIAL OIL**
- **35 DROPS ORGANIC LEMON ESSENTIAL OIL**
- **20 DROPS ORGANIC CINNAMON BARK ESSENTIAL OIL**
- **15 DROPS ORGANIC EUCALYPTUS ESSENTIAL OIL**
- **10 DROPS ORGANIC ROSEMARY ESSENTIAL OIL**

Mix all essential oils together in a dark glass bottle.

## Recipe II

- 1 TABLESPOON CLOVE ESSENTIAL OIL
- 1 TABLESPOON LEMON ESSENTIAL OIL
- 2 TEASPOONS CINNAMON BARK ESSENTIAL OIL
- 2 TEASPOONS EUCALYPTUS ESSENTIAL OIL
- 2 TEASPOONS ROSEMARY ESSENTIAL OIL

Mix all essential oils together in a dark glass bottle.

# CLEANING TIPS

## and IDEAS for TOXIN-FREE CLEANING

Use your left-over lemon halves – to clean off the cutting board, or to wipe your hands to get the garlic odor from your hands. Then put it down the garbage disposal, and grind it up to freshen any offensive smells.

Place fresh coffee grounds in a bowl on the kitchen counter or in the bathroom for a pleasant or inviting smell which is all natural.

Sunlight and Fresh Air are invisible cleaning tools. Put old, musty items from closets and bathrooms in the sun to bake dry. Sanitize your laundry outside in the sun, and open your home to the fresh air. The people like the elderly, babies and others who stay inside much of the time will benefit.

The MAGIC-CLOTH or MicroFiber cloth is a wonderful tool for almost everything in your house. I use these cloths for shining up fixtures, all general dusting, cleaning mirrors, cleaning walls, cleaning windows and eye glasses, cleaning floors, cleaning and shining sinks, and cleaning the car (without the use of any cleaning solutions). Soak a clean microfiber cloth in hot water, wring it out as dry as possible, and then slowly wipe your mirrors. Dry with a clean dry cloth and you will never even have to use any vinegar. It's that easy.

A safe, toxin/poison-free home is better than a Home and Gardens showpiece that must be maintained by toxic chemicals. The cost is too great. Death by toxicity can be avoided. You can be clean without poisoning your family.

My #1 resource for home cleaning solutions is [www.SaferSoaps.com](http://www.SaferSoaps.com). They offer pollutant-free, clean products. We recommend and use the Ultra Safe Soaps for every household need. It has been Syncrometer tested as safe. Another is [http://solutions-4-you.com/Non-Toxic-Formulas\\_Ultra-Safe-Soaps.aspx](http://solutions-4-you.com/Non-Toxic-Formulas_Ultra-Safe-Soaps.aspx). We use this one solution for brushing our teeth, cleaning toilets, cleaning floors, cleaning the car, killing bugs, the list is endless. It is the best wasp and ant-killer I have ever seen.

Bulk laundry soap is available at [www.VermontSoap.com](http://www.VermontSoap.com). Get the organic, liquid Castile soap concentrate that is safely delivered in large pails. If you go to the wholesale page it is cheaper for the 5 gallon pail. We have conducted Syncrometer testing on this soap and the rosemary soap bars and all have passed the toxicity test.

# BONUS ARTICLE

This article fascinated me because although it is not connected with the Hulda Clark protocol, it is consistent with Dr. Hulda Clark's position on death by toxicity.

Take the “Toxic Tour” and become educated on how household chemicals actually can make us sick and even kill us. The information here is valuable as it relates to toxicity in the home and the safe alternatives it presents.

I have included the article in its entirety, because it raises our awareness of the seriousness of household chemicals.

However, there are some references to Isopropyl Alcohol which should be disregarded and strictly avoided.

Isopropyl Alcohol is on the Hulda Clark toxic list and should be avoided. These references are found in the section below: “Safe Substitutes in the Kitchen and Bathroom” that “isopropyl alcohol is an excellent disinfectant”, and also in the section “Safe Substitutes for Personal Hygiene and Cosmetic Products” he recommends isopropyl alcohol for astringents/ aftershaves. Isopropyl alcohol should not be ingested or applied to the skin. As with all information you read or hear, use your own discretion and knowledge.

I have spent much time trying to get permission to use this article. If anyone can refer me to the author(s), I would appreciate it. Until then, let's benefit from the information here.

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# Safe Substitutes at Home: Non-toxic Household Products

Excerpted from:

Safe Substitutes at Home: Non-toxic Household Products

By Gary A. Davis and Em Turner

University of Tennessee - Knoxville Waste Management Institute

Working Paper

## The Household Toxics Tour

Toxic chemicals in the home can be eliminated simply by making thoughtful choices in the supermarket after educating oneself about where the hazards are in common consumer products. How can you determine what toxics you have in your home?

Take this "toxics tour."

## In the Kitchen

All-purpose cleaner, ammonia-based cleaners, bleach, brass or other metal polishes, dishwasher detergent, disinfectant, drain cleaner, floor wax or polish, glass cleaner, dishwashing detergent, oven cleaner, and scouring powder contain dangerous chemicals.

Some examples are:

- sodium hypochlorite (in chlorine bleach): if mixed with ammonia, releases toxic chloramine gas. Short-term exposure may cause mild asthmatic symptoms or more serious respiratory problems;
- petroleum distillates (in metal polishes): short-term exposure can cause temporary eye clouding; longer exposure can damage the nervous system, skin, kidneys, and eyes;
- ammonia (in glass cleaner): eye irritant, can cause headaches and lung irritation;
- phenol and cresol (in disinfectants): corrosive; can cause diarrhea, fainting, dizziness, and kidney and liver damage;
- nitrobenzene (in furniture and floor polishes): can cause skin discoloration, shallow breathing, vomiting, and death; associated with cancer and birth defects;
- formaldehyde (a preservative in many products): suspected human carcinogen; strong irritant to eyes, throat, skin, and lungs.

## In the Utility Closet

A number of products are likely to contain toxic ingredients: carpet cleaner, room deodorizer, laundry softener, laundry detergent, anti-cling sheets, mold and mildew cleaner, mothballs, and spot remover all usually contain irritant or toxic substances.

Examples:

- perchloroethylene or 1-1-1 trichloroethane solvents (in spot removers and carpet cleaners): can cause liver and kidney damage if ingested; perchloroethylene is an animal carcinogen and suspected human carcinogen;
- naphthalene or paradichlorobenzene (in mothballs): naphthalene is a suspected human carcinogen that may damage eyes, blood, liver, kidneys, skin, and the central nervous system; paradichlorobenzene can harm the central nervous system, liver, and kidneys;
- hydrochloric acid or sodium acid sulfate in toilet bowl cleaner; either can burn the skin or cause vomiting diarrhea and stomach burns if swallowed; also can cause blindness if inadvertently splashed in the eyes;
- residues from fabric softeners, as well as the fragrances commonly used in them, can be irritating to susceptible people;
- possible ingredients of spray starch (aside from the starch) include formaldehyde, phenol, and pentachlorophenol; in addition, any aerosolized particle, including cornstarch, may irritate the lungs.

## In the Living Room and Bedroom

Even the furnishings of the typical American home can be harmful. Fabrics that are labeled "wrinkle-resistant" are usually treated with a formaldehyde resin. These include no-iron sheets and bedding, curtains, sleep wear – any woven fabric, but especially polyester/cotton blends, marketed as "permanent press" or "easy care." More modern furniture is made of pressed wood products emits formaldehyde and other chemicals. Carpeting is usually made of synthetic fibers that have been treated with pesticides and fungicide. Many office carpets emit a chemical called 4-phenylcyclohexene, an inadvertent additive to the latex backing used in more commercial and home carpets, which is thought to be one of the chemicals responsible for "sick" office buildings.

## In the Bath

Numerous cosmetics and personal hygiene products contain hazardous substances.

Examples:

- cresol, formaldehyde, glycols, nitrates/nitrosamines and sulfur compounds in shampoos;
- butane propellants in hair spray (replacing carcinogenic methylene chloride), as well as formaldehyde resins;

- aerosol propellants, ammonia, formaldehyde, triclosan, aluminum chlorhydrate in antiperspirants and deodorants'
- glycols, phenol, fragrance, and colors in lotions, creams, and moisturizers.

## In the Studio or Hobby Room

Although legislation controlling many of the dangerous ingredients in hobby materials has recently been passed, exposure to certain art materials remains a health risk. Dangerous chemicals and metals include:

- lead in ceramic glazes, stained-glass materials, and many pigments;
- cadmium in silver solders, pigments, ceramic glazes and fluxes;
- chromium in paint pigments and ceramic colors;
- manganese dioxide in ceramic colors and some brown oil and acrylic paint pigments;
- cobalt in some blue oil and acrylic paint pigments;
- formaldehyde as a preservation in many acrylic paints and photographic products;
- aromatic hydrocarbons in paint and varnish removers, aerosol sprays, permanent markers, etc.;
- chlorinated hydrocarbons (solvents) in ink, varnish, and paint removers, rubber cement, aerosol sprays;
- petroleum distillates (solvents) in paint and rubber cement thinners, spray adhesives, silk-screen inks;
- glycol ethers and acetates in photography products, lacquer thinners, paints, and aerosol sprays.

## In the Garage

A number of dangerous substances are frequently present, including paint, paint thinner, benzene, kerosene, mineral spirits, turpentine, lubricating/motor oils, and gasoline. Hazards among them include these chemicals:

- chlorinated aliphatic and aromatic hydrocarbons in paint thinner can cause liver and kidney damage;
- petroleum hydrocarbons, an ingredient of gasoline, motor oils, and benzene, are associated with skin and lung cancer;
- mineral spirits in oil-based paint are a skin, eye, nose throat, and lung irritant. High air concentrations can cause nervous system damage, unconsciousness and death;
- ketones in paint thinner may cause respiratory ailments; vary according to specific form of the chemical;
- ketones and toluene in wood putty; toluene in highly toxic, may cause skin, kidney, liver, central nervous system damage; may damage reproductive system.

## In the Garden Shed

Pesticides, one of the most important single hazards in the home. Around 1,400 pesticides, herbicides, and fungicides are ingredients in consumer products. Combined with other toxic substances such as solvents, pesticides are present in more than 34,000 different product formulations.

## On the Patio

Charcoal lighter fluid contains petroleum distillates. Besides being flammable and imparting a chemical taste to food, some petroleum distillates contain benzene, a known human carcinogen.

## Safe Substitutes for Household Toxics

Until World War II and the zenith of the Chemical Age that followed war-related research, householders used a limited number of simple substances to keep most objects in the house clean, order-free, and pest-free. Soap, vinegar, baking soda, washing soda, ammonia, borax, alcohol, cornstarch, and certain food ingredients were used to lift out spots and stains, deodorize, polish wood or metal, disinfect, scrub, repel pests, clean pets, wash and starch clothes, and to perform countless other household tasks. Simple cosmetic preparations kept hair lustrous and skin supplied with the aid of ingredients such as eggs, oil, clay, vinegar, and herbs.

The garden was fertilized and pests were kept down with naturally occurring substances. Weeds were weeded by hand. Even though some natural pesticides, like nicotine and rotenone, were indeed toxic to humans, they were not persistent in the environment. They degrade soon after application. Pyrethrum, a pesticide derived from a variety of chrysanthemum which is nontoxic to mammals, controlled a wide spectrum of pests. Although it is still widely used, it is usually mixed with other chemicals to increase its potency.

Buildings of the past were made with wood, brick, stone, glass, plaster, and cement. Furniture was made of solid wood, oiled to keep it polished. Rugs or carpets were made of wool or cotton. Insulation was built in by making walls thick, and roofing was constructed from wood shingles or tiles of clay or stone. Walls were plastered. Windows were made to be opened, so at least in good weather there was plenty of natural ventilation.

But toxic materials also were present in homes of the past. Not knowing enough about their hazards, housewives used such chemicals as arsenic, lead, and mercury to perform certain household chores. Interior and exterior paints were often made with lead; many American children are still living with the legacy of lead poisoning caused by eating chips of leaded paint. Asbestos, called a miracle mineral when its fire-resistant properties were discovered, is now known to be a cancer causer that contaminates hundreds of thousands of residences, schools, and other buildings in this country.

We do not need to return to the ways of the past to avoid exposure to house toxics, but we can take some lessons from the past for a better future. How can we do this?

But Safe Substitutes. For example, search for a soap-based garden insecticide (at least one national brand is available) instead of chemically-based ones. Appendix 1 for sources of safe substitutes.

When in Doubt, Leave it Out. In cases where there is no effective safe substitute for a toxic product, reevaluate how important the goal really is. Must you absolutely get rid of all insects in your garden, or can you live with some chewed-up leaves? If the goal is absolutely imperative, such as ensuring that termites do not invade your house, it is important to educate yourself thoroughly. You may have more healthful alternatives than your local pest company tells you.

## Safe Substitutes in the Kitchen and Bath

One shelf of simple and relatively safe ingredients can be used to perform most home cleaning chores. All that's needed is a knowledge of how they work and how different ingredients should be combined to get the cleaning power needed for a specific job.

Baking Soda is sodium bicarbonate. It has a number of useful properties. It can neutralize acid, scrub shiny materials without scratching, deodorize, and extinguish grease fires. It can be used as a deodorizer in the refrigerator, on smelly carpets, on upholstery and on vinyl. It can help deodorize drains. It can clean and polish aluminum, chrome, jewelry, plastic, porcelain, silver, stainless steel, and tin. It also softens fabrics and removes certain stains. Baking soda can soften hard water and makes a relaxing bath time soak; it can be used as an underarm deodorant and as a toothpaste, too.

Borax is a naturally occurring mineral, soluble in water. It can deodorize, inhibit the growth of mildew and mold, boost the cleaning power of soap or detergent, remove stains, and can be used with attractants such as sugar to kill cockroaches.

Cornstarch, derived from corn, can be used to clean windows, polish furniture, shampoo carpets and rugs, and starch clothes.

Isopropyl Alcohol is an excellent disinfectant.

Lemon Juice, which contains citric acid, is a deodorant and can be used to clean glass and remove stains from aluminum, clothes, and porcelain. It is a mild lightener or bleach if used with sunlight.

Mineral Oil, derived from seeds, is an ingredient in several furniture polish and floor wax recipes.

Soap (NOT detergent) is made in several ways. Castle soap can be used as a shampoo or as a body soap. Olive-oil based soap is gentlest to the skin. An all-purpose liquid soap can be made by simple dissolving the old ends of bar soap (or grated slivers of bar soap) in warm water.

Steel Wool is an abrasive strong enough to remove rust and stubborn food residues and to scour barbecue grills.

TSP is trisodium phosphate, a mixture of soda ash and phosphoric acid. TSP is toxic if swallowed, but it can be used on many jobs, such as cleaning drains or removing old paint, that would normally require much more caustic and poisonous chemicals, and it does not create any fumes.

Vinegar is made from soured applied juice, grain, or wine. It contains about 5 percent acetic acid, which makes it a mild acid. Vinegar can dissolve mineral deposits, grease, remove traces of soap, remove mildew or wax buildup, polish some metals, and deodorize. Vinegar can clean brick or stone, and is an ingredient in some natural carpet cleaning recipes. Use vinegar to clean out the metallic taste in coffeepots and to shine windows without streaking. Vinegar is normally used in a solution with water, but it can be used straight.

Washing Soda or SAL Soda is a sodium carbonate decahydrate, a mineral. It can cut stubborn grease on grills, broiler pans, and ovens. It can be used with soda instead of laundry detergent, and it softens hard water. These items are available from drug and chemical-supply stores.

For common household tasks, try these nontoxic strategies using the above ingredients: Freshen air by opening windows and doors for a short period; distribute partially filled dishes of vinegar around the kitchen to combat unpleasant cooking odors; 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; rub vinegar on hands before and after slicing onions to remove the smell; use bowls of potpourri to give inside air a pleasant scent.

All-purpose cleaner can be made from a vinegar-and-salt mixture or from 4 tablespoons baking soda dissolved in 1 quart warm water.

Disinfectant means anything that will reduce the number of harmful bacteria on a surface. Practically no surface treatment will completely eliminate bacteria. Try regular cleaning with soap and hot water. Or mix 1/2 cup borax into 1 gallon of hot water to disinfect and deodorize. Isopropyl alcohol is an excellent disinfectant, but use gloves and keep it away from children. Drain cleaner. Try a plunger first, though not after using any commercial drain opener. To open clogs, pour 1/2 cup baking soda down drain, add 1/2 cup white vinegar, and cover the drain. The resulting chemical reaction can break fatty acids down into the soap and glycerine, allowing the clog to wash down the drain. Again, do not use this method after trying a commercial drain opener—the vinegar can react with the drain opener to create dangerous fumes.

Floor cleaner and polish can be as simple as a few drops of vinegar in the cleaning water to remove soap traces. For vinyl or linoleum, add a capful of baby oil to the water to preserve and polish. For wood floors, apply a thin coat of 1:1 oil and vinegar and rub in well. For painted wooden floors, mix 1 teaspoon washing soda into 1 gallon hot water. For brick and stone tiles, use 1 cup white vinegar in 1 gallon water and rinse with clear water.

Metal cleaners and polishes are different for each metal – just as in commercial cleaners. Clean aluminum with a solution of cream of tartar and water. Brass may be polished with a soft cloth dipped in lemon-and baking-soda solution, or vinegar- and-salt solution. Polish chrome with baby oil, vinegar, or aluminum foil shiny side out. Clean tarnished copper by boiling the article in a pot of water with 1 tablespoon salt and 1 cup white vinegar, or try differing mixtures of salt, vinegar, baking soda, lemon juice, and cream of tartar. Clean gold with toothpaste, pewter with a paste of salt, vinegar, and flour. Silver can be polished by boiling it in a pan lined with aluminum foil and filled with water to which a teaspoon each of baking soda and salt have been added. Stainless steel can be cleaned with undiluted white vinegar. Oven cleaner. Sprinkle baking soda on moist surface and scrub with steel wool. Or use Arm & Hammer Oven Cleaner, declared nontoxic by Consumers Union.

Scouring powder can be made from baking soda or dry table salt. Or try Bon-Ami Cleaning Powder or Bon-Ami Polishing Cleaner.

Toilet bowl cleaner can be made from straight bleach (do NOT mix with any other substance except water), baking soda and vinegar, or borax and lemon juice.

Tub and tile cleaner can be as easy as rubbing in baking soda with a damp sponge and rinsing, or wiping with vinegar first and following with baking soda as a scouring powder. Window and glass cleaner is easy with these tips: to avoid streaks, don't wash windows when the sun is shining. Use a vinegar-and-water solution, cornstarch-vinegar-and-water solution, or lemon-juice-and-water. Wipe with newspaper unless you are sensitive to the inks in newsprint.

## **Safe Substitutes for Laundry Products**

Detergent is specially adapted to clean synthetic fabrics, and it has the added advantage of not leaving soil residues even in hard water. However, detergents are generally derived from petrochemicals, and people sensitive to these compounds may find it hard to tolerate detergents or the fragrances they are scented with. In addition, most detergents contain phosphates, which build up in streams and lakes and upset the natural balance in waterways, causing blooms of algae which deplete the dissolved oxygen fish need to live. Some detergent may even contain naphthalene or phenol, both hazardous substances.

An effective alternative to using detergents is to return to soap. Soap is an effective cleaner for natural fabrics, leaving such items as diapers softer than detergent can. For cotton and linen, use soap to soften water. A cup of vinegar added to the wash can help keep colors bright (but DO NOT use vinegar if you are using bleach – the resulting fumes are hazardous). 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.

For synthetic fabrics or blends (including most no-iron fabrics), there are biodegradable detergents on the market that do not contain phosphates, fragrances, or harsh chemicals. They are often imported from Europe and are available at health food stores or by mail order.

# Safe Substitutes for Personal Hygiene and Cosmetic Products

We use cosmetics and hygiene products for a fairly narrow range of reasons: to keep skin moist and supple; to clean hair without stripping it of natural oils; to eliminate unpleasant body or mouth odors; to prevent skin oiliness and clogged skin pores; and simply for the pleasure of relaxing and pampering ourselves with body-care or facial-care treatments. The following ingredients can help achieve these purposes without the use of toxic additives, synthetic fragrances, or artificial colorings:

- Moisturizers and conditioners: egg yolk, milk, yogurt, safflower oil (for light moisturizing), olive oil (for dry skin or hair), water, oatmeal, jojoba oil.
- Astringents/after shaves: witch hazel, diluted isopropyl alcohol.
- Deodorants: baking soda, white clay, deodorant crystals.
- Toothpastes: baking soda, salt.
- Soaps cleansing agents: castile soap, olive-oil based soap.
- Perfumes: essential oils provide nontoxic fragrances that can be used to scent shampoo, bath soaks, or even, in the case of peppermint, to flavor toothpaste.
- Although it's easy to make healthful alternatives to many cosmetic and hygiene products, any natural-foods store has a fairly wide selection of shampoos, moisturizers, toothpastes, after shaves, soaps, and bath products that do not contain the harmful ingredients in many commercial preparations.

# Safe Substitutes for Art and Hobby Materials

There are some nontoxic choices that can be made when buying art or craft supplies, but because some techniques require certain materials, minimizing exposure may be the best you can do.

In painting and print making, ready-mixed water-based paints or inks can be used. If you must be exposed to paint dust, use toxic dust respirator approved by the National Institute for Occupational Safety and Health (NIOSH). Ventilate the space thoroughly whenever using any kind of solvents, whether in painting or in lithography, intaglio, or photo etching. Solvents also should be avoided while pregnant.

Enamels are usually lead-based, and can contain other toxic metals such as cadmium and nickel. Use lead-free-enamels whenever possible, and make sure kilns are vented outside. In pottery as well, outside vented kilns are important, as is a careful choice of materials – most potters know to avoid lead glazes and lead frits, but many don't know that flint, feldspars, fluorspar, and some compounds containing barium, lithium, manganese, or nickel can also be toxic. Children should avoid the pottery studio, as they are more highly susceptible to the toxics used in pottery than are adults.

Photography presents a number of toxic hazards which are difficult to avoid. Minimize exposure to photo chemical by using gloves, mixing chemicals in a mixing box with holes in the sides for

gloved hands, and providing adequate ventilation. The Health and Welfare Office of Canada suggests at least 10 room air changes per hour. Children under 12 should avoid the darkroom.

## Safe Substitutes for Pesticides in Home and Garden

Against pests in the home, the best offense is a good defense. The first step is to make the house – especially the kitchen – unattractive to insects by cleaning up food spills immediately, keeping hard-to-reach areas reasonably clean, and removing clutter that can hide pests. Store foods attractive to pests, such as flour, in the refrigerator. Water attracts pests, so leaky faucets and pipes should be promptly repaired. Doors and windows should be well screened. Cloths should be regularly cleaned and aired, and properly stored in paper or cardboard boxes sealed against moths.

A number of nontoxic substances can be used to repel insects. Generally, they are highly fragrant or volatile herbs or spices. Powdered red chill pepper, peppermint, bay leaves, cloves, citrus oil, lavender, rosemary, tobacco, peppercorns, and cedar oil can repel various types of insects.

Insects can be trapped and killed without resorting to dangerous chemicals: generally a poison nontoxic to humans is mixed with a food that insects find attractive, and spread in the infested area. Examples are oatmeal (attractive) and plaster-of-Paris (poisonous), and cocoa powder and flour (attractive) and borax (poisonous). Old-fashioned flypaper – not a hanging strip of insecticide – is an effective trap. For specific house pests, try these solutions:

For **ants**: sprinkle powdered red chill pepper, paprika, dried peppermint, or borax where the ants are entering.

For **beetles**: Kill manually when you see them.

For **cockroaches**: Mix by stirring and sifting 1 ounce TSP, 6 ounces borax, 4 ounces sugar, and 8 ounces flour. Spread on floor of infested area. Repeat after 4 days and again after 2 weeks.

For **fleas**: Feed pet brewer's yeast in powder mixed with food or by tablets.

For **moths**: Air clothes well in the sun; store in airtight containers, and scatter sachets of lavender, cedar chips, or dried tobacco in with clothing.

For **rats and mice**: Again, prevention may be the best cure. Holes in exterior or interior walls should be closed off and storage spaces kept orderly. Garbage should be kept tightly covered. To catch rodents, the most efficient system is the oldest: a cat. Next best are mouse and rat traps.

For **termites**: Any wooden parts of the house should be at least 18 inches off the ground, as subterranean termites cannot tolerate being exposed to air and light. They have to build easily visible mud tunnels to get at available wood. However, most existing houses have only about an 8-inch clearance between wooden parts and the ground, which makes the wood vulnerable. Metal shields may help discourage termites, but they cannot prevent infestations.

To treat existing termite infestations, there are a few nontoxic alternatives: the "Extermax" system, available in California; and the use of a particular species of nematodes to eat them, a system available from N-Viro Products, Ltc.

For **gardens**: In hardware stores, look for new brands of safer insecticides that use soap-and-water solution to get rid of aphids, or pyrethrum for a number of applications. As more and more people understand the hazards of organic chemicals in the home, market pressure will encourage the introduction of safer products.

Several naturally derived pesticides exist which, in some cases, are less toxic to humans than the organophosphates, carbamates, or organochlorines now widely used. Nicotine is the most toxic, poisonous both to humans and to other mammals, as well as to birds and fish. It is not available commercially for home gardeners because of its hazards. Rotenone, moderately toxic to humans, kills a wide range of insects; however, it should never be used near a waterway, as it is very toxic to fish. Ryania kills only a few species, including the European corn borer, codling moth, and cranberry fruit worm. Pyrethrum is relatively nontoxic to humans and only slightly toxic to aquatic life, so it may be the best choice for home gardens. Sabadilla controls lice, leafhoppers, squash bugs, striped cucumber beetles, and chinch bugs. It has low toxicity to wildlife, but it may be toxic to bees.

For **lawns**: Herbicides are most often used to kill "unsightly" weeds in gardens and yards, and by lawn care companies to maintain the perfect appearance of turf around homes and on lawns and golf courses. Basically, the safe alternative to herbicides is simple: pull weeds by hand. There are no really safe herbicides.

## Safe Substitutes for the Patio

A simple and much more effective alternative exists for the charcoal lighter fluid used to start the backyard barbeque. A metal, chimney-pipe cylinder, which holds the charcoal above a burning piece of newspaper and relies on the air flow under the charcoal to quickly bring it to glowing hot, is available at most discount stores. It readies the charcoal for cooking much more quickly without the chemical taste and fire hazard of lighter fluid.

## The Safe Home of the 21st Century

Because Americans spend approximately 90 percent of their time indoors, it is crucial to make the home environment as safe as possible. Indoor pollutants have proliferated in recent years, often either because modern construction techniques and furnishings manufacturers utilize hazardous materials or because consumers do not know enough about the products they buy to make informed choices.

But safe, nontoxic alternatives exist for nearly every real need around the home, and the search for them may help consumers distinguish between what they really do need, and what may be "luxuries" that could compromise their families' health.