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Today's home is loaded with toxic and polluting substances. The cost of these commercial, chemical based products can be high—long term health concerns for the family, and environmental pollution caused by their manufacture and disposal. In the U.S., for example 1 in 3 people suffer from allergies, asthma, sinusitis or bronchitis.

There are many inexpensive and easy to use alternatives which can safely be used in place of commercial household products.

Here is a list of common environmentally safe products,

- White vinegar
- Baking soda
- Soap
- Lemon
- Borax
- Washing soda
- Cornstarch

This booklet includes extensive recipes for using two safe products—white vinegar and baking soda. For recipes for the other products, check the sources cited on the final page of this booklet.

**What Is Green Cleaning?**

**Deodorizing Cars**

Why does your car still smell after you left the windows down all day? Because the odors have settled into the upholstery and carpet, so each time you step in and sit down, they are released into the air all over again. Eliminate these odors by sprinkling Baking Soda directly on fabric car seats and carpets. Wait 15 minutes or longer for strong odors and vacuum up the odors with the Baking Soda.

**Remove Oil and Grease Stains**

Use Baking Soda to clean up light-duty oil and grease spills on your garage floor or in your driveway. Sprinkle Baking Soda on the spot and scrub with a wet brush. For heavy duty or stubborn stains, try using Super Washing Soda in the same fashion.

**Deodorizing RV Water Tanks**

Sweeten your RV water tank periodically by flushing with 1 cup Baking Soda dissolved in 1 gallon warm water. Drain and flush the tank before refilling (do not use Baking Soda in your drinking water). The Baking Soda will eliminate stale odors and help remove mineral build-up that makes water taste off.

**Cleaning Grills**

To clean your grill for your next barbecue, try sprinkling dry Baking Soda on a damp brush. Scrub and rinse clean. The Baking Soda works will for the light duty clean up associated with exterior surfaces, such as knobs and trays, and it will not scratch shiny surfaces. For tough stains and burned-on foods, try using Washing Soda in the same fashion.
**FRESHEN LAUNDRY**

Baking Soda is especially effective on sour smells and perspiration odors. Also try it on sour towels in the summer and clothes that smell musty from storage.

**FRESHEN LAUNDRY HAMPERS**

Sprinkle Baking Soda liberally over dirty clothes in the hamper to keep the hamper fresh until you are ready to wash. When you wash add 1/2 cup Baking Soda to your wash with your detergent to freshen your laundry and help liquid detergents work harder.

**CLEANING BATTERIES**

Baking Soda can be used to neutralize battery acid corrosion on cars, mowers, etc. because it is a mild alkali. Be sure to disconnect the battery terminals before cleaning. Make a paste of 3 parts Baking Soda to 1 part water, apply with a damp cloth to scrub corrosion from the battery terminal. After cleaning and re-connecting the terminals, wipe them with petroleum jelly to prevent future corrosion. Please be careful when working around a battery— they contain a strong acid.

**CLEANING CARS**

Use Baking Soda to safely clean your car lights, chrome, windows, tires and vinyl seats and floor mats. Use a Baking Soda solution of 1/4 cup Baking Soda in 1 quart of warm water. Apply with a sponge or soft cloth to remove road grime, tree sap, bugs, and tar. For stubborn stains use Baking Soda sprinkled on a damp sponge. Rinse and dry with a soft towel. You will get a clean car, with a scratchless non-toxic cleanser.

**DEODORIZING CAR ASHTRAYS**

Pour 1/2 inch of Baking Soda in the cars ashtray to eliminate stale tobacco odors and to aid in extinguishing cigars and cigarettes. Empty ashtrays regularly and replace Baking Soda.

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**WHAT IS VINEGAR?**

It is the product of two stages of fermentation. It can be made from almost any sugary liquid.

In the first fermentation, the action of yeast converts the sugar to alcohol – grape juice becomes wine, for example. In the second fermentation, bacteria converts the alcohol to acetic acid – the wine becomes vinegar.

~From the Joy of Cooking, 1997
**All-Purpose Cleaner**
Mix one gallon hot water with 1/4 cup of white vinegar, or mix one teaspoon borax into one quart of hot water. Add a squeeze of lemon juice or a splash of vinegar to cut grease.
Rinse with water.

**Aluminum Discoloration**
The minerals found in foods and water will often leave a dark stain on aluminum utensils. This stain can be removed by boiling a solution of 1 tablespoon of distilled vinegar per cup of water. Utensils may also be boiled in the solution.

**Bath Tub Film**
Bath tub film can be removed by wiping with vinegar and then with baking soda. Rinse clean with water.

**Blanket Renewal**
Cotton and wool blankets become soft, fluffy and free of soap odor if 2 cups of distilled vinegar are added to the rinse cycle of the wash.

**Bottle Cleaning**
Unsightly film in small necked bottles and other containers can be cleaned by pouring vinegar into the bottle and shaking. For tougher stains, add a few tablespoons of rice or sand and shake vigorously. Rinse thoroughly and repeat until clean.

**Carpet Stain Removal**
A mixture of one teaspoon of liquid detergent and 1 teaspoon of distilled vinegar in a pint of lukewarm water will remove non-oily stains from carpets. Apply it to the stain with a soft brush or towel and rub gently. Rinse with a towel moistened with clean water and blot dry. Repeat this procedure until the stain is gone. Then dry quickly, using a fan or hair dryer. This should be done as soon as the stain is discovered.

**Microwave Cleaning**
Use Baking Soda to clean and deodorize your microwave, without scratching. Use a solution of 4 tablespoons of Baking Soda to 1 quart of water. Wipe down microwave and rinse with clear water. For cooked-on foods sprinkle Baking Soda directly on a damp sponge, scrub food stains and rinse. Try this on your fridge, freezer, and other appliances. Not only does it clean, it also deodorizes!

**Deodorizing Plastic Containers**
Keep your plastic food storage containers and thermos smelling fresh. Wash them with Baking Soda sprinkled on a damp sponge. For lingering odors, just soak items in a solution of 4 tablespoons Baking Soda solution in 1 quart warm water. You will never know what was stored in them before.

**Polish Silver Flatware**
Baking Soda can shine all your silver in no time at all. Use a Baking Soda paste made with 3 parts Baking Soda to 1 part water. Rub onto the silver with a clean cloth or sponge. Rinse thoroughly and dry for shining sterling and silver-plate serving pieces.

**Cleaning Pots and Pans**
No more heavy scrubbing pots and pans! Baking Soda penetrates and helps lift off baked-on, dried-on-foods. Shake on a generous amount of baking soda, add hot water, and dish detergent, let sit for 15 minutes and wash as usual.

**Deodorizing Recyclables**
Keep those recyclables smelling fresh until collection day. Sprinkle Baking Soda on top as you add to the container. Also, clean your recyclable container periodically by sprinkling Baking Soda on a damp sponge. Rinse and wipe clean. You can also wash the container with a solution of 1 cup of Baking Soda per 1 gallon of water.
**Extinguishing Fires**
Always keep Baking Soda on hand in the kitchen for an unexpected grease or electrical fire. Keep it near the stove so you can reach it in case of a stovetop fire. Throw Baking Soda at the base of the flames as an initial step in controlling small kitchen or electrical fires. Call the Fire Department to avoid re-ignition, do not attempt to move the item until thoroughly cooled. To be sure, let the Fire Department handle this. **DO NOT USE BAKING SODA IN DEEP FAT FRYERS, AS IT MAY SPLATTER.**

**Deodorizing Fridges and Freezers**
Be sure to keep your Fridge and Freezer smelling fresh even with the fish and onions inside. Place Baking Soda box in the back of both the fridge and freezer, and close to the air duct (usually located near the top shelf), to neutralize odors and prevent taste transfer between foods. Change the boxes every 3 months.

**Fruit and Vegetable Scrub**
Baking Soda is the food safe way to clean dirt and residue off fresh fruit and vegetables. Just sprinkle on a damp sponge and scrub. Then rinse.

**Deodorize Garbage Can**
Keep those garbage smells to a minimum by sprinkling Baking Soda in the garbage between layers of garbage as they accumulate. Periodically wash out and deodorize garbage cans with a solution of 1 cup of Baking Soda per 1 gallon of water.

**Food Safe/Surface Cleaning**
Baking Soda is the ideal all-purpose cleaner for the kitchen. Who wants to use harsh chemicals on your counters, sinks, dish strainers, when you will be making dinner on those same surfaces? Just sprinkle Baking Soda on damp sponge or cloth and wipe clean, rinse thoroughly, then dry. Try it on counters, sinks, cutting boards, microwaves, plastic containers, back splashes, oven tops, range hoods and more.

**Catsup Stains**
Spots caused by catsup can be removed from 100 percent cotton, cotton polyester and permanent press fabrics if they are sponged with distilled vinegar within 24 hours and washed immediately.

**Chrome and Stainless Steel Polish**
Chrome and stainless steel can be polished by wiping with distilled vinegar.

**Clean Dishwasher**
1/2 cup of distilled vinegar added to the rinse cycle of automatic dishwashers will help keep the drain line clean and odorless.

**Clogged Drain**
A clogged drain may sometimes be opened by pouring in a handful of baking soda, followed by a half cup of vinegar, down the drain pipe.

**Clothes Washing Magic**
Clothes will rinse better if a cup of white vinegar is added to the last rinse water. The acid in vinegar is too mild to harm fabrics but strong enough to dissolve the alkalis in soaps and detergents.

**Coffee Maker Cleaner (Automatic)**
Vinegar can help to dissolve mineral deposits that collect in automatic drip coffee makers from hard water. Fill the reservoir with vinegar and run it through a brewing cycle. Rinse thoroughly with water when the cycle is finished. (Be sure to check the owner's manual for specific instructions.)

**Coffee Maker Cleaner (Percolator)**
Stale coffee residue and oils that collect inside a percolator type coffee maker and cause coffee to taste bitter may be removed by pouring vinegar into a cool unplugged coffee percolator. Soak overnight, rinse thoroughly and wipe with a damp cloth.
**Cola Stains**
Spots caused by cola based soft drinks can be removed from 100 percent cotton, cotton polyester and permanent press fabrics if done so with in 24 hours. Sponge distilled vinegar directly onto the stain and rub away the spots. Then clean according to the directions on the manufacturer’s care tag.

**Cooking Odors**
To eliminate unpleasant cooking odors, boil a teaspoon of distilled vinegar in a cup of water in the room with the unwanted odor.

**Cut Flower Preserver**
Fresh cut flowers can be kept blooming longer by adding two tablespoons of vinegar, plus three tablespoons of sugar to each quart of warm water. The stems must be kept in three to four inches of the nutrient.

**Cutting Grease**
A few teaspoons of distilled vinegar will help to cut the grease.

**Decal Removal**
Old decals can be easily removed by sponging on distilled vinegar. Allow the vinegar to soak in for a few minutes and then wash off.

**Deodorant Stains**
Deodorant and anti-perspirants stains may be removed from clothing by lightly rubbing with distilled vinegar and laundering as usual.

**Deodorizing Containers**
The odors of the former contents of old jars and other containers may be removed by rinsing them in white vinegar.

**Cleaning Coffee and Tea Pots**
Remove those coffee and tea stains and eliminate bitter off-tastes by washing coffee maker parts, and coffee and tea pots in a solution of 1/4 cup Baking Soda in 1 quart of warm water. For stubborn stains, try soaking overnight in the Baking soda solution and detergent. You can even remove the unsightly stains from your favorite cups and mugs, by sprinkling Baking Soda on a sponge and scrubbing the stains away!

**Deodorizing Cutting Boards**
Your cutting board smells like the garlic you chopped up yesterday? Use Baking Soda to clean and deodorize your cutting boards because it is a food safe cleaner! Sprinkle Baking Soda on a damp sponge, scrub and rinse clean!

**Deodorizing Dishwashers**
Not ready to run the dishwasher, but cannot stand the smell of the tuna you had for lunch? Sprinkle a handful of Baking Soda on the dishes or in the bottom of the dishwasher to absorb these odors, so you can wait until the washer is full. The Baking Soda will do double-duty: deodorizing before you run the dishwasher and then cleaning in the first wash cycle. With Baking Soda handling the first cycle, add your detergent only to the cup that closes, for use in the second cycle.

**Sweeten Drains and Garbage Disposals**
To deodorize your drains and disposal, pour Baking Soda down the drain while running warm tap water. The Baking Soda will neutralize both acid and basic odors for a fresh drain. When you are replacing a box from the Fridge or Freezer, pour the contents of the old box down the drain to get extra mileage from the Baking Soda.
What is Baking Soda?

What is Baking Soda? Baking soda, a sodium bicarbonate, is a naturally occurring substance that is present in all living things—it helps living things maintain the pH balance necessary for life. Baking Soda is made from soda ash, also known as sodium carbonate. The soda ash is obtained in one of two ways: it can be manufactured by passing carbon dioxide and ammonia through a concentrated solution of sodium chloride (table salt) or mined in the form of an ore called trona.

Baking Soda acts as a cleaning agent because it is a mild alkali and can cause dirt and grease to dissolve easily in water for effective removal. When Baking soda is not fully dissolved, like when it is sprinkled on a damp sponge, it is mildly abrasive and can lift dirt for easy removal as a gentle scouring powder. Since it's gentle, Baking Soda is safe and effective as a cleaner for glass, chrome, steel, enamel and plastic. Because Baking Soda is a pure, natural product that is also a food, it is non-toxic, unlike many other household cleaners.

Dish washing magic

Chalky deposits are often left on dinnerware washed in dishwashers. To remove the deposits, place the affected pieces in the dishwasher. Put a cup filled with vinegar on the bottom rack and run the machine for five minutes. Stop the machine and refill the cup, whose contents have been replaced with water, with vinegar. Repeat this cycle and follow by a complete cycle with dishwasher detergent.

Doggie did it on the carpet

Test the color fastness of the carpet with vinegar in an inconspicuous place. Then sprinkle distilled vinegar over the fresh doggie 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.

Dust reducer

Sponging away grease and dirt with a sponge dipped in distilled vinegar will keep exhaust fan grills, air conditioner blades and grills dust free.

Electric irons

To remove burn stains from an electric iron, mix 1 part salt with one part vinegar and heat in a small aluminum pan. Use this mix to polish the iron as you would silver.

Eyeglasses

Clean eyeglasses with a drop of vinegar.

Fish bowl cleaner

Eliminate that ugly deposit in the gold fish tank by rubbing it with a cloth dipped in vinegar and rinsing well.
**Fresh Bread Box**
After cleaning the bread box, keep it smelling sweet by wiping it down with a cloth moistened in distilled vinegar.

**Fresh Lunch Box**
It is easy to take out the heavy stale smell often found in lunch boxes. Dampen a piece of fresh bread with distilled vinegar and leave it in the lunch box overnight.

**Freshen Baby Clothes**
The addition of 1 cup of distilled vinegar to each load of baby clothes during the rinse cycle will naturally break down uric acid and soapy residue leaving the clothes soft and fresh.

**Fruit Stains**
To eliminate fruit stains from your hands, rub your hands with a little distilled vinegar and wipe them with a cloth.

**Garbage Disposal Cleaner**
Garbage disposals may be kept clean and odor free with vinegar cubes. Vinegar cubes are made by filling an ice tray with a mixture of 1 cup of vinegar and enough water to fill the ice tray and freezing it. Run the mixture through the disposal, and then flush it with cold water for a minute or so.

**Grass Killer**
Unwanted grass can be eliminated from sidewalks and driveways by pouring distilled vinegar on it.

**Hole Removal**
After a hem or seam is removed, there are often unsightly holes left in the fabric. These holes can be removed by placing a cloth, moistened with distilled vinegar, under the fabric and ironing.

**Water or Alcohol Marks on Wood**
Stubborn rings resulting from wet glasses being placed on wood furniture may be removed by rubbing with a mixture of equal parts of distilled vinegar and olive oil. Rub with the grain and polish for the best results.

**Window Cleaner I**
Make a solution of 1 part warm water and 1 part distilled vinegar. Wash the windows with this and dry with a soft cloth. This should produce shining, streak-less windows. Dried paint on windows is removed with hot vinegar.

**Window Cleaner II**
Use newspaper dipped in vinegar to scrub windows or, a mix of one quart water a few drops dishwashing detergent and two tablespoons of sudsy ammonia works well.

**Wine Stains**
Spots caused by wine can be removed from 100 percent cotton, cotton polyester and permanent press fabrics if done so within 24 hours. To do it, sponge distilled vinegar directly onto the stain and rub away the spots. Then clean according to the directions on the manufacturer’s care tag.
SUDS KILLER
Excess laundry suds that develop during hand laundry may be eliminated by splashing a little vinegar into the second rinse. Follow this with another rinse in plain water.

TEA KETTLE DEPOSITS
Over a period of time, depending on the water supply, lime deposits will form in a tea kettle. The deposits may be removed by gently boiling a 1/2 cup of vinegar in the tea pot which has been filled with water.

TOILET BOWL CLEANER I
Stubborn stains can be removed from the toilet by spraying them with vinegar and brushing vigorously. The bowl may be deodorized by adding 3 cups of distilled vinegar. Allow it to remain for a half hour, then flush.

TOILET BOWL CLEANER II
Pour one-cup vinegar into the toilet bowl, then toss in a handful of baking soda. The mixture will foam. When the foam subsides, scrub and rinse.

UNCLOG THE SHOWERHEAD
Corrosion may be removed from showerheads or faucets by soaking them in diluted distilled vinegar overnight. This may be easily accomplished by saturating a terry cloth towel in vinegar and wrapping it around the showerhead or faucet.

VARNISHED WOOD RENEWAL
Varnished wood often takes on a cloudy appearance. If the cloudiness hasn’t gone through to the wood, the cloudiness can be removed by rubbing the wood with soft lintless cloth wrung out from a solution of 1 tablespoon of distilled vinegar in a quart of lukewarm water. Complete the job by wiping the surface with a soft dry cloth.

KEEPING COLORS FAST
To hold colors in fabrics which tend to run, soak them for a few minutes in distilled vinegar before washing.

LEATHER CLEANING
Leather articles can be cleaned with a mixture of distilled vinegar and linseed oil. Rub the mixture into the leather and then polish with a soft cloth.

LOOSEN JOINTS
To loosen old glue around rungs and joints of tables and chairs under repair, apply distilled vinegar with a small oil can.

NO FROST WINDSHIELDS
Distilled vinegar will help to keep frost off of the windshields. Apply solution of 3 parts vinegar to 1 part water wiped on the windshield.

NYLON HOSE PRESERVER
Nylon hose will look better and last longer if 1 tablespoon of vinegar is added to the rinse water when washing.

ONION ODOR REMOVAL
To quickly remove the odor of onions from your hands, rub your hands with distilled vinegar.

OVEN GREASE RETARDANT
Grease buildup in an oven can be prevented by wiping with a cleaning rag that has been moistened in distilled vinegar and water.

PAINT BRUSH SOFTENER
Soak the paint brush in hot vinegar, and then wash out with warm, sudsy water.
**PATENT LEATHER SHINER**
Patent leather will shine better if wiped with a soft cloth which has been moistened with distilled vinegar.

**REMOVING SMOKY ODORS FROM CLOTHES**
Smoky odors may be removed from clothes by hanging them over a steaming bath to which one cup of distilled vinegar has been added.

**REMOVING STAINS**
A mixture of salt and vinegar will clean coffee and tea stains from chinaware.

**ROOM ODORS**
To remove odors from a room, place a small bowl of distilled vinegar in the warmest corner of the room. Even the odors of fresh paint or stale tobacco may be removed in this manner.

**RUST CUTTER**
A rusted or corroded bolt may be loosened by soaking it in distilled vinegar.

**SCENTING A ROOM**
To add a pleasant scent to a room while at the same time removing an unpleasant odor, add cardamom or other fragrant spice to a bowl of distilled vinegar and place in the warmest corner of the room.

**SHARP KNIT FABRIC CREASES**
To obtain a sharper crease in your knit fabrics, dampen them with a cloth wrung out from a solution of 1/3 cup distilled vinegar and 2/3 cup water. Place a brown paper bag over the crease and iron.

**SHINE STAINLESS STEEL**
Remove those unsightly spots on your stainless steel by rubbing the spots with a cloth that has been dampened with vinegar.

**SHINING FORMICA COUNTERS**
Formica tops and counters will shine if cleaned with a cloth soaked in distilled vinegar.

**SHINING NO WAX LINOLEUM**
No wax linoleum will shine better if wiped with a solution of 1/2 cup of white vinegar in 1/2 gallon of water.

**SPARKLING GLASSWARE**
One-half cup of distilled vinegar added to a gallon of rinse water will remove soap film from glassware and make it shine.

**SPARKLING PLUMBING FIXTURES**
Soap and stain build up can be removed from chrome and plastic fixtures if they are cleaned with a mixture of 1 teaspoon of salt and 2 tablespoons of distilled vinegar.

**TOUGH STAINS**
Stains on hard-to-clean glass, aluminum, or porcelain utensils may be loosened by boiling in a solution of one part vinegar to eight parts water. The utensils should then be washed in hot soapy water.

**STUBBORN STAIN OF POTS' N PANS**
Soak the pots and pans in full-strength distilled vinegar for 30 minutes, and then wash in hot, soapy water.