

# HOME *Safe* HOME



## Kitchen

### All-Purpose Cleaners

*Ammonia, Chlorine.* Mixed together, ammonia and chlorine form a deadly chloramine gas. → For general cleaning, use 1 cup of washing soda per bucket of hot water. For scouring, use a paste of baking soda and water, or use a feldspar-based cleaner. Scrub with a damp cloth or scrubbing pad.

### Automatic Dishwashers

*Chlorine.* Automatic dishwashing powder contains harsh detergents with high concentrations of phosphates. Phosphates kill fish and other aquatic life when they reach streams and lakes. → Look for alternative detergents with no phosphates or a low phosphate content.

### Dishwashing Liquid

Most dishwashing liquids are non-biodegradable detergents derived from petroleum that contain chemical additives for fragrance and color. Detergents cause many childhood poisonings. → Use a castile, glycerine-based, or other naturally derived liquid soap. You can also rub a damp dish cloth over a bar of pure soap.

### Pest Control

*Pesticides.* Designed to kill pests, these products may also contaminate air and indoor surfaces, posing direct health threats to children, adults and pets. → Work to keep your kitchen as clean and dry as possible. Use caulk or screens to block pests point of entry. Borax or boric acid mixed with sugar deters roaches and ants, but use only in areas inaccessible to children and pets. If necessary, use bait packages but not sprays. Bait packages use less chemicals and reduce exposure risks. *See the yard section.*



### Metal Polishes

*Ammonia, Phosphoric Acid, Sulfuric Acid.* Fumes from metal polish contaminates our air and threatens our health. Waxes and other materials don't rinse away from the polished items and may alter the tarnish — making it even harder to clean. → A solution of 2% soap in water may be used for cleaning silver. Please view [www.HomeSafeHome.org](http://www.HomeSafeHome.org) or contact us for more information.

### Oven Cleaners

*Lye, Sodium Hydroxide.* These products, which may emit fumes, are some of the most dangerous household cleaning products. → Avoid spills and grease buildup as much as possible. Line burners and oven bottoms with aluminum foil. Clean oven with a paste of baking soda and hot water. Steel wool or pumice stone will remove resistant black spots. Self-cleaning ovens may reduce the need to clean.



### Plastics/PVC

There is increasing concern that contaminants leak from plastic containers used to heat or store food. The manufacture and disposal of polyvinylchloride (PVC), the most common plastic, contaminates our environment with dioxin and other pollution. Many chemicals associated with the manufacture, use and disposal of plastics are known or suspected to cause cancer, serious reproductive effects and other health problems. → Avoid plastic whenever possible and avoid heating foods in plastic containers. Most products made with PVC were originally made with other materials (metal or wood). Look for and demand alternatives to PVC and other plastics.

## Basement

### Mold & Mildew Cleaners

*Chlorine, Pesticides.* These cleaners contain chemicals which may cause lung damage, eye and skin irritation, and other side effects. → Proper ventilation and dehumidifiers can reduce or eliminate mold growth. Mix vinegar with water or sprinkle baking soda on a damp sponge to clean affected areas.

### Washroom

*Disposable Diapers.* Most contain a plastic shell, synthetic liner, artificial fragrances and inks. Over 18 billion disposable diapers are thrown away each year. → Consider using cloth diapers. Modern diaper covers make for a quick, pin-less diapering. A cotton diaper can be used at least 200 times and then becomes a rag. Many communities have diaper service companies listed in the phone book; look for one that uses nontoxic cleaning methods.



### Laundry

*Phosphates.* Many laundry products contain non-biodegradable detergents made from petroleum. Artificial colors and fragrances can cause reactions in persons with sensitive skin. Even phosphate-free, biodegradable detergents contribute to water pollution. → Use soap products rather than detergents, and boost with washing soda. If soap products are not strong enough, use the lowest possible phosphate detergent.



## Living Room

### Deodorizers, Air Fresheners

*Cresol, Formaldehyde, Paradichlorobenzene, Phenol.* These chemicals are used to desensitize your nose and hide offending odors. → House plants absorb pollutants and purify the air. Potpourri is a natural way to introduce a nice scent. To absorb odors, place baking soda or white vinegar in small dishes. Sprinkle baking soda in trash cans and kitty litter pans.



### Flea & Tick Control

*Pesticides.* In addition to possible damage to your pet's health, these products can rub off and expose your family to unnecessary health risks. → Pet dips and sprays containing de-limonine gas (a citrus extract) repel pests safely. Sprinkle pyrethrin powders (made from chrysanthemums) on the carpet, then vacuum to prevent further infestation. Look for biodegradable, nontoxic insecticidal soaps and 100% organic sprays and flea collars (made from cedarwood, orange, eucalyptus and bay distillates).

### Floor & Furniture Polish

*Cresol.* Residual vapors contaminate your home long after application. In addition, wood polish may cause severe skin and eye irritation. → Dust furniture with a barely damp cloth. Clean wood floors and furniture with vegetable-based oil soaps. On unfinished wood, use vegetable oil to replenish luster. Polish finished wood with butcher's wax once or twice a year.

## Garage

### Automotive Products

Many automotive products such as oil, antifreeze, and freons are toxic. One quart of motor oil can contaminate a million gallons of water. Run-off from paved surfaces is a large contributor to surface water contamination. → As there are few alternatives, proper handling and disposal of products is essential. Proper vehicle maintenance helps: fix fluid leaks immediately, avoid spills, carefully bottle used motor oil and take to a licensed service station for proper disposal and recycling. Locate responsible stores or garages which will take back and recycle dead batteries and used tires. Contact your local government for recommended disposal of other automotive products.



## Yard

### Pesticides

*Include herbicides & fungicides.* Used in a garden and lawn, these toxins can enter our food, cause water pollution and may allow the transfer of pesticides into the house via the soles of shoes. → Many pest problems can be solved without resorting to chemical poisons. Safer Integrated Pest Management (IPM) can help. Identify the specific pests, their causes and severity. Implement solutions that attack the root causes of the problem (e.g., raise lawnmower height to shade out weeds, reduce pest-attracting moisture around foundations and plumbing, seal cracks and crevices where pests enter the home or hide). Carefully monitor progress and use nontoxic or "least toxic" pest-killing treatments only as a last resort. Some less harmful alternatives include: introducing beneficial bugs which attack pests, organic insecticides (desiccant powders such as diatomaceous earth and boric acid), compost instead of fertilizer, non-toxic traps, companion planting and biological pesticides which use species-specific bacteria to kill pests. If you have a lawn service, insist that they use IPM practices and get a written contract specifying that you will be notified in advance of any proposed pesticide use, with specifics on any products or chemical treatments to be applied. The nonprofit group, *Beyond Pesticides* is one helpful resource on IPM and pest control alternatives [(202) 543-5450], [www.BeyondPesticides.org](http://www.BeyondPesticides.org)



### Pressure Treated Wood

*Arsenic.* Most of the pressure-treated wood used in playground equipment, decks and picnic tables is preserved with Chromated Copper Arsenate (CCA). There are increasing concerns about health and environmental problems associated with the arsenic in this compound; some countries have banned it. → Look for wood labeled "arsenic-free," as there are less toxic treatments in use. Consider non-wood alternatives, or, depending on the use, untreated wood. Many state health agencies recommend that CCA-treated wood be resealed at least once every two years to prevent chemicals from contaminating people or the environment.

## Bedroom

### Lead

Lead is one of the most pervasive poisons, and can cause permanent damage to children. The major source of childhood lead poisoning is leaded paint, which is found in many homes built before 1978. Some household venetian-style "mini" blinds may contain unsafe lead levels. → Easy-to-use lead test kits are available at most hardware stores. The only way to know your children's lead levels is to have their blood tested yearly for lead — seek your doctor's advice. Contact your local health department for help determining if you should contain any lead paint or have it removed. Removing lead paint requires professional training and protective equipment as lead dust and fumes endanger children and adults.



### Mothballs

*Naphthalene, Paradichlorobenzene.* Children often confuse mothballs for candy. A single mothball can cause seizures in a two-year-old within one hour of being eaten. → To deter moths, store clean woolens in a sealed container. A gauze bag containing 2 handfuls each of dried lavender and rosemary, plus 1 tablespoon each of fresh cloves and dried lemon peel may repel moths.

### Dry Cleaning

*Solvents, Tetrachloroethylene.* Dry cleaners create excessive toxic emissions that threaten workers, communities and our environment. Clothes hold residues that may contaminate our homes and enter our bodies through skin contact. → Some items may be washed at home and if necessary, taken to a cleaner to be pressed. If you have items that need professional cleaning, look for a shop that offers wetcleaning or uses carbon dioxide. If you use a dry cleaner, remove clothes from the bag and air them out before storing or wearing.

## Bathroom

### Aerosols

*Isobutane, Propane, Solvents.* Many aerosols are combustible. → Avoid aerosol cans. If a spray is necessary, use a pump dispenser.



### Antibacterial Soaps & Lotions

*Pesticides, Ammonia.* These products are antibiotics that may be absorbed through the skin and may promote drug-resistant organism development. → The American Medical Association criticizes the widespread use of antibacterial soaps and states that regular soap is as effective.

### Cosmetics

*Chemicals, fragrances, preservatives, and natural ingredients* may cause irritations, allergies and other health effects. The FDA does not require approval for new cosmetics. → Read labels carefully and look for products with natural, biodegradable ingredients.

### Disinfectant

*Phenol, Formaldehyde, Cresol, Ammonia, Chlorine.* These products don't kill all germs — only some of them — and they may bring harmful chemicals into your home. Fumes can escape through tightly closed containers and cause damage to internal organs and the central nervous system. → Immersing objects in boiling water will kill germs. For larger surfaces, use hot water and soap.

### Drain Cleaners

*Lye, Hydrochloric & Sulfuric Acid.* These are some of the most hazardous products found in homes, and they cause direct water pollution. → Always use a drain basket to prevent clogging.

To maintain clean drains, mix 1/2 cup baking soda, 1/2 cup salt and 1/8 cup cream of tartar. Pour this mixture down the drain and follow with hot water. *Note:* Use mixture completely as it will not remain active if stored. Clear clogs with 1/4 cup baking soda followed by 1/2 cup vinegar. Cover drain and sink overflow vent until fizzing stops; then flush with boiling water. For persistent clogs, use a metal drain snake available at hardware stores or seek the advice of a plumber.



### Glass Cleaners

*Ammonia.* Ammonia makes many glass cleaners poisonous, but many do not have a warning label. → Use 50% white vinegar and 50% water. Reuse an old pump dispenser for spraying and use newspaper or a squeegee to avoid streaking. If necessary, use rubbing alcohol to clean wax left from commercial glass cleaners.

### Toilet Cleaners

*Chlorine, Hydrochloric Acid.* Manufacturers' warning labels tell you not to breathe the product that you are using, but fumes can escape even with a closed container. → Use soap and washing soda to clean and baking soda to freshen. Remove stubborn rings by scrubbing with white vinegar or a pumice stone.



**DISCLAIMER.** These suggestions are meant to offer alternatives to practices that harm our health and/or the environment. Use or application of the suggested alternatives may need to be varied in individual circumstances. If necessary, consult with a professional. These suggestions are not a substitute for common sense; please take any necessary precautions prior to use. Products that are natural or "nontoxic" may be irritating to certain individuals. Some methods may require a test application prior to use.

# POLLUTION PREVENTION BEGINS AT HOME

- CLEAN WATER FUND -

**Create Less Waste.** Some state and local agencies use incinerators to burn waste. Incinerators create air pollution and toxic ash that may contaminate groundwater when it is landfilled. Incinerators require massive amounts of garbage to burn economically which may deter recycling efforts. Be an Everyday Environmentalist by practicing the 3 R's: **Reduce, Reuse, Recycle.**

- The most important goal is to reduce consumption. Many disposable products are simply unnecessary: use cloth shopping bags, avoid over-packaged materials and carry a mug.
- Use reusable products: washcloths or rags instead of paper towels, refillable razors and food storage containers.
- Look for products and packaging that are easily recyclable: such as glass, aluminum and cardboard.

**Wastes Safely.** If you have toxic products in your home, and want to throw them away — be careful. Some products that are widely accepted as safe are actually very toxic. Some common examples are mercury from thermometers, gas from broken fluorescent light bulbs, freon from old air conditioners, batteries, paint and solvents. Call your local government to ask for a hazardous waste drop-off site near you. Encourage your friends and neighbors not to dump chemicals into sewers. Report any incidents of illegal dumping to the police.

**Conserve Energy & Natural Resources.** When buying new appliances look for the most efficient models. Consider using light bulbs (such as compact fluorescents) and rechargeable batteries that create less waste and save you money. Keep the temperature of your home cooler in the winter and warmer in the summer. Work to conserve

water — turn off the faucet while “lathering up” your hands or body. In some states you can switch to an alternative energy provider (renewable resources).

**Transportation.** The environmental impact of the automobile extends far beyond oil spills and exhaust fumes: the creation of roads and highways interrupts ecosystems, traffic discourages walking and bicycling, and auto repairs and construction



requires many toxic materials. Walking, cycling, commuting via subway, train, bus or in a carpool help to preserve the environment and may be more relaxing and less costly. If purchasing a new auto, consider an alternative energy vehicle or a fuel efficient model.

**Need Help?** If you have trouble finding natural and alternative products, contact your local co-op or health food store or do a search on the Internet. New books are published every year that cover these topics. The non-profit group *Co-op America* compiles extensive information about responsible consumption: (800) 584-7336 or [www.CoopAmerica.org](http://www.CoopAmerica.org). If your local markets don't carry alternative products, ask them to.

**Encourage Others to Reduce Pollution and Risks.** Please help us spread the word. *Clean Water Fund* is working around the country to

## In Harm's Way: Toxic Threats to Child Development

The *In Harm's Way* report released in 2000 by Clean Water Fund and Greater Boston Physicians for Social Responsibility identifies chemical contaminants in air, water and food as contributors to hyperactivity, attention deficit, lower IQ and motor skill impairment. The report spotlights some toxics that may be found in and around homes. They include: toxic metals such as lead, manganese and mercury; pesticides; dioxins and PCBs that may contaminate some foods; solvents used in gasoline, paints, glues and cleaning solutions. For many of these substances, there are health concerns beyond toxicity to the developing brain, including risks for cancer, birth defects, and other central nervous system damage. Taking steps to avoid exposure in and around the home is only part of the solution. Please contact Clean Water Fund for more information, or visit [www.PreventingHarm.org](http://www.PreventingHarm.org), where you can learn more about the *In Harm's Way* report, view our *What You Can Do* brochure, and find other helpful resources and action opportunities.



educate citizens about toxic products and encourage the use of safer alternatives. We have a *Preventing Harm* program that works to decrease chemical exposure in babies and children. Please visit our websites for more information:

[www.Home-Safe-Home.org](http://www.Home-Safe-Home.org)  
[www.PreventingHarm.org](http://www.PreventingHarm.org)  
[www.CleanWaterFund.org](http://www.CleanWaterFund.org)

## THANKS FOR DOING YOUR PART!

Clean Water Fund & Clean Water Action work to increase public understanding of environmental issues and promote creative, workable solutions. With offices around the country, Clean Water provides citizen education and environmental action at the local, state and national levels. Until more people become Everyday Environmentalists, it will be extremely difficult to slow the degradation of our environment.

## Clean Water Fund

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### Following are some of the dangerous ingredients found in household products with some of their possible effects on human health and the environment:

<b>Ammonia:</b> burns, blindness, lung disease	<b>Hydrochloric Acid:</b> respiratory & gastrointestinal damage	<b>Phenol:</b> reproductive & development problems, burns, heart problems
<b>Arsenic:</b> cancers, heart damage, stomach & liver problems	<b>Formaldehyde:</b> reproductive and menstrual problems, cancers	<b>Phosphates:</b> threaten aquatic systems
<b>Butane, Isobutane &amp; Propane:</b> burns, suffocation	<b>Lye (Sodium Hydroxide):</b> burns, blindness, lung damage, lesions	<b>Phosphoric Acid:</b> seizures, abdominal & respiratory damage
<b>Chlorine:</b> eye & skin damage, leads to dioxin formation	<b>Naphthalene:</b> anemia, cataracts, kidney & liver damage	<b>Sodium Hydroxide:</b> see Lye
<b>Cresol:</b> burns, anemia, liver and kidney damage	<b>Paradichlorobenzene:</b> liver problems, possible carcinogen	<b>Solvents:</b> reproductive problems, cancers
<b>Dioxins:</b> cancers, skin disease, reproductive problems	<b>Pesticides:</b> leukemia, cancer, birth defects, reproductive problems	<b>Sulfuric Acid:</b> burns
		<b>Tetrachloroethylene:</b> probable carcinogen

**Ingredient Notes:** Many of the reproductive effects are for males and females. Many of these substances contaminate groundwater, a common source of drinking water. Most of these chemicals are especially dangerous around children. Many (but not all) of the commercial products in this guide contain the ingredients listed in their categories.



# HOME Safe HOME



Many of the products we use everyday can be harmful to people and animals, and their manufacture, use and disposal makes pollution problems worse. Clean Water Fund is concerned about the immediate and long term effects of toxic pollution. The *Home-SAFE-Home* program is designed to help you, as a consumer, reduce pollution and protect your health.

According to the U.S. Environmental Protection Agency's (EPA's) Toxics Release Inventory, industries released 7.3 billion pounds of toxic pollution into the air, land and water in 1998. EPA also estimates that in 1998, each person in the United States generated 4.5 pounds of solid waste (trash) per day for a yearly total of 220 million tons.



The production of hazardous waste is an unfair burden on communities where chemical manufacturers, petroleum refineries and other large hazardous waste generators are located, and some of this pollution travels around the globe and affects all of us. Smaller hazardous waste generators can be found in most communities: dry cleaners, auto repair shops, pest exterminators and photo processing centers. Unnecessary trash not only costs our communities money, but also contributes to pollution from landfills and garbage incinerators.

Much of the pollution from hazardous waste and trash can be linked to consumption. The production of convenience items, disposables, quick-fix household products, batteries, non-biodegradable packaging and other products contribute to our trash problems and the pollution of our air, soil, and water.

Thousands of chemicals are contained in various household products and new chemicals appear every year — many without any testing for health effects. Pesticides, cleaners and a host of other products may offer instant results, but many present health threats and leave their mark on the environment for hundreds of years.

Home-SAFE-Home will introduce you to things you can do to protect your family and your community, and to help reduce pollution at the source.

**Minimize the Use of Toxic Products in Your Home.** Pollution is generated each time a cleaning bucket is dumped, a drain is unclogged with chemicals, a garden is sprayed with pesticides, or any chemical is discarded in the trash. The chemical products used in homes every day remain as irritants that may have carcinogenic fumes. Misused, some of these products can cause severe illness and fatalities. Improperly disposed of, the chemicals emerge in our streams, drinking water and oceans. Multiply the individual use of household toxic chemicals by millions of U.S. residents, and the effect is frightening.

**Watch for Product Labels.** Labels such as Danger, Poison, Warning & Caution notify us of products containing toxic ingredients that should be avoided or used in moderation with extreme care. Look for products that have little or no warnings.

**Beware of "Home Improvement" Products.** Many paints, glues, rug cleaners and other products contain toxic ingredients that create vapors or residues for weeks after they are used or applied. Some of these products are safer than others, for example, look for water-based products and paints with a low Volatile Organic Compound (VOC) content.

**Consider Your Diet.** Many commercial foods contain chemical pesticide residues. Carrots and strawberries contain some of the highest chemical residues. As animals eat and grow, dioxins and other chemicals bioaccumulate (build-up in fat tissue). Animal waste from factory farms causes significant water pollution and the production of animal-based food requires large amounts of resources (land, water, energy) compared to the production of plant-based food. To reduce waste and dietary exposure to toxins, eat "lower on the food chain" (fewer

animal products) and look for certified organic foods.

**Simplify.** The proliferation of specialized products for each area of the home — even many products that are marketed as “environmentally sound” — is a problem in and of itself. It can be difficult to properly evaluate “environmental claims,” and some of these products may be unnecessary. Together with a little old fashioned “elbow grease,” six relatively benign ingredients can be effectively substituted for dozens of “bathroom cleaners,” “kitchen cleaners,” “laundry products,” etc: baking soda, lemon juice, white vinegar, washing soda (a naturally occurring mineral), pure soap powder and borax.\* By avoiding unnecessary, overly-specialized products, you can help reduce pollution, simplify your life and save money at the same time.

**Protect Our Health and the Environment!** Our *Home-SAFE-Home* guide lists information about various household products, arranged by a common area of the home where they are used. The guide identifies some toxic ingredients (*see back page*), potential health risks and alternative solutions for you to consider. Safer substitutes that are often simpler exist, as do increasing numbers of products featuring “natural” or non-synthetic chemical ingredients (found in many grocery and health food stores, co-ops and catalogues). We urge you to use less polluting alternatives — you can keep your family healthier while helping the environment and using your buying power to support responsible companies.

\*There is currently incomplete data regarding health effects of borax (a cleaning booster) and boric acid (used for pest control). If you choose to use these or any of the “safer” alternatives, please use appropriate cautions to safeguard against inadvertent ingestion, inhalation or other direct exposures.

