



Maintaining the Home

Selection and Use of Home Cleaning Products

Maintaining the Home: Selection and Use of Home Cleaning Products

Buying home cleaning products is confusing. Labels and ads are filled with numerous claims and complex chemical terms. To choose the best product for the job, a consumer must know the most common ingredients of each and be able to compare their performance and safety. The common ingredients are abrasives, acids, alkalies, bleaches, detergents, sanitizers and spirit solvents.

Abrasives

Abrasives found in cleansers scour hardened food particles, grease, tarnish and stains. Sandpaper, plastic and nylon meshes and steel wool are abrasives. Some metal cleaners contain a fine, abrasive-like silica.

Caution

Coarse abrasives feel rough and gritty. Regular use of harsh abrasives scratches shiny finishes of sinks, bathtubs and kitchen appliances. Course abrasives also damage plasticware, glass, some nonstick finishes on cookware, painted woodwork and plated and highly polished metals. When surfaces are dull and rough, they soil faster and stain deeper, so you must continue to use a harsh abrasive to clean them.

Mild abrasives or liquid cleaners are available for fiberglass bath fixtures and other shiny finishes.

Acids

Some acids remove hard water deposits and some remove rust stains. Others take away discoloration from aluminum, brass, bronze and copper.

Very Mild Acid

Vinegar removes hard water deposits from glassware, rust stains from sinks and tarnish from brass and copper. It also counteracts alkaline oven cleaners.

Lemon juice has much the same use as vinegar.

Cream of tartar sweetens coffee makers and brightens aluminum.

Very Strong Acid

Oxalic acid is an effective rust remover.

Hydrochloric acid, sulfuric acid or sodium bisulphate (also known as sodium acid sulphate) are contained in some toilet bowl cleaners (Table 1).

Table 1. Acids in household cleaners:

Products	Possible Acid Ingredients
Toilet bowl cleaner	Sodium bisulphate, oxalic acid, dilute hydrochloric acid, dilute sulfuric acid
Rust removers	Oxalic acid
Metal cleaners	Weak acids

Caution

Oxalic acid, hydrochloric acid, sodium bisulphate and sulfuric acid are all poisonous. They can injure the skin and eye or damage clothing, leather and some metals.

Maintaining the Home: Selection and Use of Home Cleaning Products

Dispose of cloths and brushes used to apply oxalic acid. Otherwise, the acid could be transferred to kitchen utensils and dishes and could be ingested.

Damage can occur when two or more different kinds of metals are treated together with acid. For this reason, avoid soaking anything metal in a container made of another metal.

Alkalies

Alkalies remove oil and dirt without rubbing and vary in strength (Table 2).

Very Mild Alkali

Baking soda mixed with water cleans glass, wall tile and porcelain enamels. This solution also removes coffee and tea stains from china and plastic dishes.

Moderate Alkalies

Household ammonia, containing 5 to 10 percent ammonia gas in water, cleans kitchen range burners and ovens, windows and mirrors.

Sudsy ammonia has soap or detergent added. Sudsy ammonia cleans garbage pails, kitchen range burners and sinks.

Borax is a cleaner for woodwork, walls and sinks.

Strong Alkalies

Trisodium phosphate (TSP) cleans walls, woodwork and resilient floors except linoleum.

Washing soda, also called sal soda, can be used in cleaning kitchen range burners with heavy grease.

Very Strong Alkali

Lye, also known as caustic soda, is an ingredient in some drain and oven cleaners.

Table 2. Alkalies found in household cleaners.

Products	Possible Alkaline Ingredients
All-purpose cleaners such as Spic and Span, Ajax, 409	TSP, ammonium compounds
Oven cleaners	Sodium hydroxide (lye), ammonia
Window cleaners	Ammonia or ammonium compounds
Drain cleaners	Caustic soda (lye)
Scouring powders	Alkaline salts, TSP

Caution

Most alkalies are poisonous, some are corrosive and others irritate skin and eyes. Lye can burn skin severely. Alkalies remove oil from skin, so wear gloves. Alkalies also take oil from linoleum and oil-based paints, making them crack or peel. Damage to surfaces can be prevented by using a mild alkaline solution and by rinsing well to remove all the cleaner.

Bleaches

Bleaches remove stains. Chlorine bleaches are disinfectants.

If a product contains bleach the label may say “contains bleach,” “bleaches as it cleans” or “chlorinated.” Sodium hypochlorite may be among the list of label ingredients.

Caution

Never use bleach with a toilet bowl cleaner or rust remover because a harmful gas is produced. Using bleach and ammonia together forms dangerous chemical compounds, which could ignite.

Chlorine bleach can dull shiny finishes on sinks, bathtubs and other porcelain enamel surfaces. This bleach is an alkali and will darken aluminum and make linoleum brittle.

Detergents

Detergents are one of the ingredients in many home-cleaning products and help loosen dirt. A detergent is probably present if suds appear. If a builder of complex soluble phosphate has been added it removes oil and dirt better. When a builder is present the product is marked “heavy duty” or “all-purpose.”

Sanitizers

Sanitizers (Table 3) kill bacteria, which cause skin, respiratory, intestinal and kidney infections. By killing bacteria, they also destroy odors.

Sanitizers are used when cleaning tubs, showers, toilet bowls, bathroom sinks and ceramic or plastic bathroom tile. They also are used in laundering and hand dishwashing.

Table 3. Some common sanitizers by trade names.

Sanitizers	Trade Names
Liquid chlorine bleach	Clorox, Purex, Texize Bleach
Quaternary	Lephrin, Roccal
Pine oil disinfectants	Fyne Pine, Texize-O-Pine
Phenolic disinfectants	Pine-Sol, Lysol Brand Disinfectant, Al Pine

Caution

Check the product label for limitations on the use of a sanitizer.

Spirit Solvents

Spirit solvents remove oil and dirt. Many waxes and polishes for furniture and floors and floor wax removers contain spirit solvents. They also are found in some all-purpose cleaners, sanitizers and drain cleaners.

Examples of spirit solvents are paint thinners, turpentine and kerosene.

Caution

Most spirit solvents are flammable and must be kept away from heat, sparks and open flame. By law, the label must indicate that the product is flammable. Extremely flammable products also may say “harmful or fatal if swallowed ... if swallowed, do not induce vomiting. Call a physician immediately.”

If solvent is spilled on clothing, don't wear it near a heat source. Since clothing also is flammable, serious burns may result. Be careful when disposing of empty solvent containers. Even a small amount of solvent left in the container can cause an explosion and ignite if left in a warm place or sunlight.

Carbon tetrachloride, once used for spot removal, is a spirit solvent considered too dangerous for home use. Swallowing carbon tetrachloride or inhaling its fumes can be fatal. Carbon tetrachloride also can injure the liver, kidneys, brain and nervous system.

A spirit solvent wax for floors cannot be used safely on asphalt or rubber tile which are softened by solvents.

Not all floor waxes are spirit solvents. Some are water-emulsion waxes that damage wood and cork. These waxes may be recognized by the statement: “Keep from freezing.”

Safe Handling Of Cleaning Products

Most cleaning products used in homes today are dangerous only when misused. The most frequent misuse is accidental swallowing by curious children. Never transfer cleaners into soft drink bottles or other containers that may seem harmless to children.

Regulations require that all hazardous substances

Maintaining the Home: Selection and Use of Home Cleaning Products

be labeled with the statement, “Keep Out of the Reach of Children.” Under the kitchen sink is the worst place to store household cleaners.

Keep products, such as strong acids and alkalies away from skin and eyes. Wear protective clothing, such as gloves and an apron. Wash off immediately any products that you splash or spill on your skin.

Products containing flammable liquids should never be used near an open flame such as a pilot light on a kitchen range or gas clothes dryer, lighted cigarettes or furnaces.

Do not leave an aerosol (pressurized) container on a kitchen range, radiator, furnace, in direct sunlight or near other heat sources. Never puncture an aerosol container. Before discarding this type of container, hold the valve open until all the contents and gas have escaped.

Never discard an empty aerosol container into a fire or incinerator because some gas usually remains even in an apparently empty can. Heat causes the gas to expand and may lead to an explosion.

If an accident occurs in the use of a hazardous substance, refer to the label on the product for the correct first aid procedures. Follow the directions carefully. If it is necessary to take a child or adult to the hospital or a physician’s office because of an accident, be sure you take with you the container of the product that caused the injury. The information on the label will assist the physician in giving prompt and proper treatment.

This material was adapted from publications produced by New Mexico State University Cooperative Extension. Extension materials can be found on the Web at www.cahe.nmsu.edu/pubs.

*This resource is one in a series on **Maintaining the Home** which include:*

Interior Maintenance

Preventive Home Maintenance Checkup
Make a Basic Toolkit for Simple Home Repairs
Selection and Use of Home Cleaning Products
Discovering the Secrets of Successful Storage

Heating

Furnace Care
Fireplace and Chimney Care

Cooling

Evaporative Cooler
Air Conditioner
Ceiling Fans

Plumbing

Fixing Plugged Sink Drains
How to Unclog a Toilet
Repairing Dripping Faucets

Electrical

How to Set or Reset a Circuit Breaker
How to Replace a Fuse

Appliances

How to Buy an Energy Efficient Home Appliance
Choosing a Water Heater

Maintenance:

Dishwasher Care and Dishwasher Cleaning
Dryer Care and Dryer Cleaning
Freezer Care and Freezer Cleaning
Garbage Disposal Care and Cleaning
Range and Oven Care and Range Cleaning
Refrigerator Care and Refrigerator Cleaning
Small Electrical Appliance Care and Cleaning
Washer Care and Cleaning

Flooring

Buying new carpet
Carpet Care and Cleaning
Wood Floors Care and Cleaning
Ceramic Tile Floors Care and Cleaning
Vinyl Floor Coverings Care and Cleaning

Walls

Selecting and Applying Paint
Wallpaper Selection and Cleaning
Repairing Walls

Furniture

Furnishing Your New Home: Color and Design
Selecting Fabric For Home Furnishings

Exterior Maintenance

Home Exterior

Foundations, Basements and Yards
Exterior Walls, Windows, and Doors

Roof

A Guide To Roofs
Roof Maintenance

Landscaping and Lawn Care

Principles of Xeriscape
Watering Your Lawn

Home Safety

Child-Proofing Your Home
Is Your Home Safe From Fire Hazards?
Smoke Alarms Save Lives
Carbon Monoxide Alarms
Are Your Children Safe From Poisons?
Protecting Yourself Against Burglary

Maintaining the Home: Selection and Use of Home Cleaning Products

Conservation

Weatherize Your Home
Easy Tips to Save Money and the Planet
How to Stop Air Leaks Around Windows
Energy-Efficient Heating and Cooling
Indoor Water Conservation Tips
Outdoor Water Conservation Tips

Environment Issues

Green Building
Reduce-Reuse-Recycle: Alternatives for Waste Management
Create a home recycling center
Healthy Indoor Air for New Mexico Homes
Dealing with Mold
Household Hazardous Waste
Hazardous Household Substances: Alternatives That Are Relatively Free of Toxic Effects
Radon

Pest Control

Cockroaches and Their Control
Southwest Insects

Accessible Living

Update your home for a lifetime of living
Vision Loss & Hearing Loss
Hand Dexterity, Strength and Range of Motion
Cognitive Difficulties
Mobility Impairments, Balance and Coordination

Sponsored by New Mexico State University and the City of Las Cruces. Supported by U.S. Department of Housing and Urban Development. New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating. © 2005 NMSU Board of Regents. All rights reserved.



Maintaining the Home: Selection and Use of Home Cleaning Products