Green Alternatives to Toxic Household Products and Hazardous Waste

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The proper use, care, and disposal of hazardous household cleaning products is important for your safety, your family's safety, and the protection of the environment. In many cases, alternatives can be used to handle common household tasks so that hazardous products are not necessary.

Table 1 provides selected household products, alternatives for these products, safety concerns, and disposal options. For additional information, contact your local county Extension office (https://aces.nmsu.edu/county/). See NMSU Extension Guide G-315, *Green Cleaning Methods for Your Home* (https://aces.nmsu.edu/pubs/_g/G315.pdf), for information on making safer, non-toxic homemade cleaning products.

SAFETY CAUTIONS

- **NEVER** mix chlorine bleach and ammonia because this creates a deadly gas. Be aware that cleaning products may contain ammonia. Read the ingredient label for ammonia content. Some examples of products with ammonia are glass cleaners, multi-purpose cleaners, and oven cleaners.
- **NEVER** mix chlorine bleach with commercial toilet bowl cleaners.
- Label mixed solutions and keep them out of reach of children.
- Do not use food containers for storing cleaning products.
- Store chemicals in their original containers.

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Note: Distilled white vinegar is the product used in the alternative cleaners provided within this guide. Cleaning vinegar is available on the market. These vinegars have a strength of 6% acidity compared to 5% in distilled white vinegar. Cleaning vinegar may come at an increased cost, and the difference in acid is probably not significant. Distilled white vinegar can be used in cleaning and cooking. Check the cleaning vinegar product label for guidelines on proper use (Heinz Vinegars, 2018).

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options

Product	Alternatives	Safety Concerns	Disposal Options
Ammonia Cleaners	Mix a solution of 1/4 cup vinegar to 1 quart water. For stubborn stains that are difficult to remove, try washing the area first with soapy water.	Seek immediate medical help if ammonia cleaners are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Possible loss of vision	Most ammonia cleaners are water-soluble. Flush any leftover product down the toilet or a drain followed with plenty of water. **Note: If you have a septic system, do not flush or pour ammonia cleaners down the drain. Take unused ammonia cleaners to a hazardous waste disposal site.** Search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal. Rinse the ammonia cleaner container thoroughly with water before recycling.
Bleach	Use heated vinegar or hydrogen peroxide (3%) to sanitize: 1. Heat either 1/2 cup white distilled vinegar OR hydrogen peroxide in a sauce pan to 150°F (66°C). 2. Use a funnel to pour the warm solution into a spray bottle. 3. Immediately spray on surface (countertops, sink, faucets, more). 4. Let sit for 1 minute. 5. Wipe with a clean cloth or paper towel. Use room-temperature vinegar or hydrogen peroxide (3%) to sanitize: 1. Use either 1/2 cup white distilled vinegar OR hydrogen peroxide. 2. Use a funnel to pour the room-temperature solution into a spray bottle. 3. Spray onto surface. 4. To be effective, the solution must sit for 10 minutes. 5. Wipe with a clean cloth or paper towel.	Seek immediate medical help if bleach is swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Loss of vision	Flush any leftover bleach down the toilet or a drain followed with plenty of water. Rinse the bleach container thoroughly with water before recycling.

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options (cont.)

Product	Alternatives	Safety Concerns	Disposal Options
Drain Cleaners	Use baking soda and vinegar: 1. Pour 1/2 cup baking soda followed by 1/2 cup vinegar into the drain. 2. Wait 10 minutes. 3. Pour hot water down the drain. Use a plunger or plumber's snake.	Seek immediate medical help if drain cleaners are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Loss of vision	Most drain cleaners are water-soluble. Flush any leftover chemicals down a drain. Search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal. Rinse the drain cleaner container thoroughly with water before recycling. **Note: If you have a septic tank, be sure the cleaner is septic-safe. This information can be found on the product label.**
Furniture Polish	In a small container or bowl: 1. Mix 3/4 cup vinegar with 1/4 cup olive oil. 2. Add 1 tablespoon lemon juice for fragrance. 3. Mix well. 4. Pour a small amount of liquid onto a lint-free white cloth. 5. Blot the cloth onto the wood. 6. Rub in the liquid, generally following the grain of the wood. 7. Wipe away any excess liquid with a clean, dry cloth. 8. Store the mixture in the refrigerator after use. It will keep several weeks. If it smells rancid or looks moldy after a period of time, discard it. 9. To use again, let the mixture return to room temperature Use a natural furniture wax product, such as bees wax. These products are available at home improvement and hardware stores. Some products may be ordered over the Internet.	Seek immediate medical help if furniture polish is swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Loss of vision	The vinegar/olive oil mixture can be poured down the drain followed by hot water. To dispose of furniture polish, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal.
Mothballs	Keep unused clothing and fabrics in sealed, air-tight containers. For more information, see NMSU Extension Guide C-504, *Preventing Damage from Clothes Moths and Carpet Beetles* (https://aces.nmsu.edu/pubs/_c/C504.pdf).	Poisonous fumes from mothballs may cause: • Abdominal pain • Diarrhea • Dizziness • Fever • Headaches	Moth balls are flammable. To dispose of unused moth balls, check with your local environmental, health, or solid waste agency for information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal.

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options (cont.)			
Product	**Alternatives**	**Safety Concerns**	**Disposal Options**
Mothballs *(continued)*		• Hemolytic anemia, a condition in which red blood cells are destroyed and removed from the bloodstream before their normal lifespan is over. These cells carry oxygen to your body. • Kidney damage • Liver damage • Nausea/vomiting	
Motor Oil and Car Batteries	No alternatives available. As a safety precaution, wear gloves and goggles when handling.	Seek immediate medical help if motor oil is swallowed or there is skin contact with battery fluids. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ/tissue damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Loss of vision	Take any unused oil or car batteries to an auto parts recycling center. Search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area.
Oil-based Paints (including spray)	If you can't use the product completely, give it to someone who can use it. Schools and community groups may take donations of paint. Use water-based latex paints. These paints are not considered hazardous household waste. Dried unused paint can be deposited with household trash.	Exposure to oil-based paints may cause: • Headaches • Inflammation of the lungs • Skin irritation • Nausea Contact with eyes: • Irritation • Loss of vision	For unused products, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal.
Oven Cleaners	Use salt: 1. While the oven is still warm, sprinkle salt on the spill. If the spill is completely dry, wet the spill before sprinkling on the salt. 2. When the oven cools down, scrape away the spill. 3. Wash the area clean. Use baking soda: 1. Wet the area with water. 2. Sprinkle on a layer of baking soda. 3. Rub gently with a very fine steel wool pad for tough spots. 4. Wipe clean with dry paper towels. 5. Rinse well and wipe dry.	Seek immediate medical help if oven cleaners are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ/tissue damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Loss of vision	Small amounts of oven cleaners made without sodium hydroxide or lye can be flushed down kitchen drains or toilets with plenty of water. For oven cleaners that contain sodium hydroxide or lye, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. If the oven cleaner is an aerosol, refer to manufacturer's directions for proper disposal.

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options (cont.)			
Product	**Alternatives**	**Safety Concerns**	**Disposal Options**
Oven Cleaners *(continued)*	Nontoxic oven cleaners without lye, such as Arm & Hammer Oven Cleaner, can be used instead. NOTE: Consumers Union chemists declared this product nontoxic. Use according to label directions (University of Michigan Extension, 1998).		
Paint Remover	Nontoxic solvents for paint removal are commercially available. Check local home improvement and hardware stores. Instead of using toxic solvents, try sanding off old paint or using a heat gun. For safety, wear goggles and a mask. Note: Never use gasoline as a solvent.	Seek immediate medical help if paint removers are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ/tissue damage • Brain damage • Possible death	For unused toxic solvents, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. For unused nontoxic solvents, follow manufacturer's recommendations for proper disposal.
Pesticides, Herbicides, Fungicides, and Insecticides	Natural pesticides, herbicides, fungicides, and insecticides are available from local garden, home improvement, and hardware centers. Try: • Using citronella to repel many insects. • Using soapy water (dish detergent and water) in a spray bottle to control aphids and mites. • Using natural predators, such as lady bugs. • Removing breeding areas for insects, such as standing water to control mosquitos. • Keeping areas clean and litter-free. For more information on pesticides approved for organic gardening, see NMSU Extension Guide H-168, *Selection and Use of Insecticides for Organic Production* (https://aces.nmsu.edu/pubs/_h/H168.pdf).	Toxins can be absorbed through skin contact and by breathing. Exposure can cause: • Fatigue (feeling of being tired) • Headaches • Nausea • Tension Deadly if swallowed. Can cause cancer.	For unused products, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal.
Powdered Cleaners	Combine 1/2 cup vinegar with 2 tablespoons: • Baking soda to absorb odors, deodorize, and as a mild abrasive. • Chalk for a mild, nonabrasive cleaner. • Pumice to remove stains or polish surfaces. • Salt for a mild abrasive. • Washing soda to cut heavy grease.	Seek immediate medical help if powdered cleaners are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death	For water-soluble household cleaning products, wash down a drain with running water just like when you use them.

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options (cont.)			
Product	**Alternatives**	**Safety Concerns**	**Disposal Options**
Powdered Cleaners *(continued)*		Contact with skin: • Irritation • Burning Contact with eyes: • Possible loss of vision	
Shoe Polish	Use a small amount of olive or vegetable oil. Using a clean cloth, rub the oil onto the shoes. Wait five minutes. Use a clean cloth to buff the shoes to a shine. Adding lemon juice to the oil will increase the shine. Use the inside of a banana peel to buff the shoes. Use warmed beeswax. Use a clean cloth to rub the warm wax onto the shoes. Buff the shoes to a shine. Note: The wax will also condition leather.	Internal tissue damage caused by swallowing or inhalation: • Kidney damage • Damage and inflammation of the lungs • Nausea • Nervous system disorders • Organ damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Possible loss of vision	Shoe polish can be extremely harmful to the environment. Do not dispose of these products with household trash or by washing down the drain. Search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area.
Solvents	Nontoxic solvents are commercially available. Check with local home improvement and hardware stores, or search the internet for suppliers.	Seek immediate medical help if solvents are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Possible loss of vision	For unused products, search the internet or use the yellow pages to find local environmental, health, or solid waste agencies. They can provide information on household hazardous waste management options in your area. Refer to manufacturer's directions for proper disposal.
Toilet Cleaners	Use borax and vinegar: 1. Pour 1 cup vinegar all over the stained area of the toilet. 2. Sprinkle 1 cup borax over the vinegar. 3. Allow to soak for 2 hours. 4. Use a toilet brush to clean. 5. Flush.	Seek immediate medical help if toilet cleaners are swallowed or there is skin contact. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death	Most toilet cleaners are water-soluble. Wash small amounts of product down a drain with water. When in doubt about how best to dispose of toilet cleaners, store the product for a household hazardous waste collection program or take it to a local hazardous waste disposal site. Refer to manufacturer's directions for proper disposal.

Table 1. Household Products, Alternatives for These Products, Safety Concerns, and Disposal Options (cont.)			
Product	**Alternatives**	**Safety Concerns**	**Disposal Options**
Window Cleaners	In a spray bottle, mix 1 cup distilled vinegar with 1 cup water. Spray on window or glass. Dry using a paper towel or clean cloth. Mix 1/4 cup cornstarch with 1/4 cup distilled vinegar. Mix well. Quickly dab onto windows or glass. Let dry. Rub off with a clean cloth. Combine 1/2 teaspoon liquid dish soap, 1/4 cup distilled vinegar, and 2 cups of water. Soak a sponge or small cloth in the mixture. Wring out excess liquid. Wipe spots and smears from windows or glass with a paper towel or clean cloth. Store any excess window cleaner in a glass jar with a tight-fitting lid. For hard stains, try washing first with soapy water.	Exposure to window cleaner products can cause dizziness. Internal tissue damage caused by swallowing: • Burns of the mouth and throat • Throat swelling • Abdominal pain • Organ damage • Brain damage • Possible death Contact with skin: • Irritation • Burning Contact with eyes: • Possible loss of vision	Most window cleaners are water-soluble. Wash small amounts of product down a drain with water. When in doubt about how best to dispose of window cleaners, store the product for a household hazardous waste collection program or take it to a local hazardous waste disposal site. Rinse the window cleaner container thoroughly with water before recycling.

IN CASE OF EMERGENCY CALL

The New Mexico Poison and Drug Information Center:
1-800-222-1222

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