

HOUSEHOLD
CLEANING

HOME
IMPROVE-
MENT

**HANDBOOK
ON REDUCING
HOUSEHOLD
TOXICS**

ADDITIONAL
RESOURCES



Lincoln-Lancaster County
Health Department

WHO TO CONTACT:

HELPFUL PHONE NUMBERS:

For Household Hazardous Waste: 402-441-8021

Solid Waste Nuisance Complaints: 402-441-8022

Waste for Small Businesses: 402-441-8002

Safe Homes for Seniors at Aging Partners: 402-441-7030

- This free home handyman service is for eligible residents, 60 years or older, that have toxic household chemicals and/or hazardous waste in their homes.

North 48th Street Solid Waste Disposal Facility: 402-441-8104

Bluff Road Solid Waste Disposal Facility: 402-441-8102

Recycling and Compost: 402-441-8215

HELPFUL WEBSITES:

Household Hazardous Waste: Lincoln.ne.gov (keyword: household)

Recycling: Recycle.lincoln.ne.gov

Litter and Illegal Dumping: Lincoln.ne.gov (keyword: klcb)

Waste Facilities: Lincoln.ne.gov (keyword: solid waste)

**For Poisonings:
Call the Nebraska Regional Control Center
1-800-222-1222**

For all other emergencies: Call 911

ACKNOWLEDGEMENTS

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DISCLAIMER

A serious effort has been made to present the most current and concise information as possible for Lincoln and Lancaster County residents. While every effort was made to assure accuracy, the Lincoln-Lancaster County Health Department cannot assume any liability for the effectiveness or the results of the procedures or materials described herein. Use caution and common sense with all cleaners, solvents, pesticides, and other household chemicals, and keep them out of reach of children and pets.

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AIR FRESHENERS + DEODORIZERS

USE & STORAGE

Follow label instructions. Store in a locked cabinet or out of reach of children and pets and away from sources of heat or flames.

ALTERNATIVES

- Open windows and doors for at least a few minutes every day.
- Pour pure vanilla on a cotton ball in a saucer. Place in car, room or refrigerator.
- Set out a dish of vinegar or boil 1 tablespoon of white vinegar in 1 cup of water to help eliminate unpleasant cooking odors.

For carpets/refrigerators:

- Baking soda will absorb smoking, cooking, pet and other odors

For a sink garbage disposal:

- Grind used lemons in the disposal.
- Pour 1/2 cup of baking soda, followed by 1/2 cup of vinegar, down the drain. Cover drain and let sit 15 minutes. Rinse with 2 quarts of boiling water.

BLEACHES, LAUNDRY

USE & STORAGE

Wear heavy rubber gloves when using. Use in a well-ventilated area. Keep the container lid tightly closed when not in use and store out of reach of children and pets.

DISPOSAL

Best: Use up or give away. Rinse the empty container and dispose of in the garbage.

Second best: If your home is connected to a city sewer system and you are unable to use or give away leftover bleach, flush small amounts down an inside drain (toilet is preferable) with a lot of water. If you are on a septic system, flush very small quantities over several days.

ALTERNATIVES

- Reduce the amount of chlorine bleach needed by half by adding 1/2 cup baking soda to top-loading machines or 1/4 cup to front loaders.
- Use oxygen bleaches 1/2 cup per load.
- Use hydrogen peroxide based bleaches.

NEVER mix chlorine bleach with ammonia or with any acid, including vinegar. When combined, these compounds produce chloramine gas, a toxic vapor.

CLEANERS, GENERAL HOUSEHOLD

USE & STORAGE

DO NOT MIX ammonia-based cleaners with bleach-based cleaners. Hazardous fumes will result. Wear gloves and use with adequate ventilation. Keep container lid tightly closed when cleaner is not in use. Store in secure area out of the reach of children and pets and away from sources of heat or flames.

ALTERNATIVES

For general cleaning:

- Instead of chemical cleaners, use soap and water, vinegar, baking soda or lemon juice.
- Use either of the following mixtures in a spray bottle to clean countertops, floors, walls, carpet and upholstery:
 - Dissolve 4 tablespoons baking soda in 1 quart warm water.
 - Use a mixture of 1/2 cup vinegar and 1 cup to 1 quart of warm water.
- Mix vinegar and salt together for a good surface cleaner. Will remove grease if vinegar is at full strength.
- For an abrasive cleaner, use baking soda or a non-chlorinated scouring powder.

For aluminum:

- To remove stains and discoloration from aluminum cookware, fill cookware with hot water and add 2 tablespoons cream of tartar to each quart of water. Bring solution to a boil and simmer 10 minutes.
- To clean an aluminum coffee pot and remove lime deposits, boil equal parts of water and white vinegar. Boiling time depends upon how heavy deposits are.

For automatic-drip coffee makers:

- To remove mineral deposits and unclog coffee makers, run 1 cup vinegar through the machine as you would water, followed by two pots of water to remove vinegar taste. Minimize odor by using the kitchen exhaust fan and opening a window.

For floors:

- Damp mop linoleum using a mild detergent and water for day-to-day cleaning.
- For a vinyl floor, use 1/2 cup white vinegar with 1 gallon water.
- For a wood floor, damp mop with mild vegetable oil soap.
- To remove black heel marks, rub with a paste of baking soda and water.
- To remove crayon marks, rub with toothpaste and a damp cloth (will not work well on wallpaper or porous surfaces).

For toilets:

- Scrub regularly with a toilet brush and non-chlorinated scouring powder.

For windows:

- Mix 1/4 cup of white vinegar or 2 tablespoons of lemon juice and a quart of warm water in a spray bottle. Use as you would any window cleaner.

The average person in the US uses 40.6 pounds of household cleaners each year.

DETERGENTS: DISHWASHING + LAUNDRY

USE & STORAGE

Carefully read labels to determine the hazards associated with the detergents in your home. Keep container lids tightly closed when not in use and store in a secure area with child-resistant cabinet latches or on a high shelf out of reach of children and pets. Powdered rather than liquid detergents may be a safer choice if you have small children in the home.

ALTERNATIVES

For laundry:

- Use white vinegar as a laundry helper. Adding 1 to 2 cups of vinegar to the final rinse eliminates soap residue. Vinegar also breaks down uric acid, which is present in urine. Add 1 cup of vinegar to rinse water when washing baby clothes. **Warning: do not use vinegar if using chlorine bleach. It will produce toxic vapors.**

DISINFECTANTS

USE & STORAGE

Use according to label instructions. Use chemical splash goggles and heavy rubber or nitrile gloves to protect from corrosive effects. Use in a well-ventilated area. Keep container lid tightly closed when not in use and store out of reach of children.

ALTERNATIVES

- Rubbing alcohol is a disinfectant. Wear nitrile gloves. Apply to surface with a sponge and allow to dry.
- For kitchens and bathrooms, spray with 3% hydrogen peroxide solution and wipe clean. **Warning: do not mix with any other products it can produce toxic vapors.**

DRAIN CLEANERS

USE & STORAGE

Use according to label instructions. Avoid adding a drain opener to a toilet bowl that contains toilet bowl cleaners. Do not mix with bleach. Keep container lid tightly closed when not in use and store in locked cabinet or out of reach of children.

ALTERNATIVES

- For clogged kitchen drains, pour 1/2 cup of baking soda, followed by 1/2 cup of vinegar, down the drain. Cover drain and let sit 15 minutes. Rinse with 2 quarts of warm water.

OVEN CLEANERS

USE & STORAGE

Follow all label directions. Wear an apron, heavy rubber or nitrile gloves and chemical splash goggles. A respirator is recommended if the product contains sodium or potassium hydroxide and is in an aerosol can. Use with correct cartridge and filter. Use kitchen exhaust fan and open several windows to provide adequate fresh air. When not in use, keep in a secure place out of the reach of children and pets.

ALTERNATIVES

- Put a sheet of aluminum foil on the oven floor away from the heating element. When baking a pie or other dish on the upper rack, place a cookie sheet below it on the lower rack to catch drips.
- Use a non-chlorinated scouring powder, a pumice stick or a copper or steel wool scrubbing pad. A blunt knife is useful for prying up large crusty materials.
- Use a self-cleaning oven.

RUG + CARPET CLEANERS

USE & STORAGE

Avoid using aerosol products. Use in a well-ventilated area according to label instructions. Avoid breathing vapors. Wear heavy rubber or nitrile gloves to avoid skin contact. Keep container tightly closed when not in use. Store in a locked cabinet or out of reach of children and pets. Avoid aerosol products whenever possible.

ALTERNATIVES

For general cleaning:

- Use a soap-based, non-aerosol rug shampoo. Vacuum when dry.

For spills:

- Club soda or clear water are effective on some types of stains, particularly from alcoholic beverages, coffee or tomato-based food.
- Grease stains may require a solvent. Try a citrus-based product.

To neutralize odors:

- Sprinkle baking soda liberally over affected area, let sit overnight, then vacuum.

STAIN + SPOT REMOVERS

USE & STORAGE

Avoid aerosol products. Use in a well-ventilated area. Wear nitrile gloves to avoid skin contact. Keep children and pets out of the room in which you are working. Keep container tightly closed when not in use. Store in a locked cabinet or out of reach of children and pets and away from sources of flames.

ALTERNATIVES

Wet spotter

1 part glycerin

1 part liquid dishwashing detergent

8 parts water

Removes many kinds of stains.

Store in a labeled plastic squeeze bottle. Shake well before each use.

Ballpoint pen ink:

- Dab with glycerin or rub with a paste of cream of tartar.

Fruit/berry stains:

- Hold tea kettle above the fabric and pour hot water on the stain.
Place item in tub or basin to prevent splashes.

Grass stains:

- Often impossible to remove. Try first with alcohol, follow with dish washing liquid or wet spotter. Rinse, then soak in laundry enzyme product and water.

Mildew stains:

- Try vinegar.

Pet urine:

- Act quickly. Dried urine is hard to remove and can leave a persistent odor. Blot as much as possible. Rinse thoroughly with cool water and distilled vinegar solution. Apply dishwashing liquid or wet spotter and rinse with cool water.

HOUSEHOLD CLEANING

- Use an enzyme-activated pet cleaner, follow directions.

Protein stains (milk, cream, ice cream, mayonnaise, egg, fruit, blood):

- Avoid warm or hot water, which will set stain. Soak for at least half an hour in a laundry enzyme product, then launder in cool water. If blood stains persist after the enzyme treatment, try hydrogen peroxide before laundering.

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ADHESIVES + GLUES

USE & STORAGE

Use white glue, glue sticks or yellow glue whenever possible. These are the least toxic adhesives currently available. Most other adhesives and glues contain solvents. For adhesives or glues containing solvents, use a non-aerosol application if possible. Keep container lids tightly closed when not in use and store in a secure area that is locked or out of reach of children and away from sources of heat or flames.

ALTERNATIVES

- For gluing wood, china, paper and other porous materials, white or yellow carpenter's glues are the least toxic.
- For gluing paper, paste or a glue stick is safer than rubber cement.
- For pasting up artwork for publication, use a waxer with paraffin.
- For mounting photos, use dry mounting tissues.

AEROSOLS

USE & STORAGE

Use in a well-ventilated area (preferably outdoors) and follow label instructions. Store in a locked cabinet or out of reach of children and away from sources of heat or flames.

ALTERNATIVES

- Use non-aerosol self-applied products such as gels, roll-ons, liquids or solids. Avoid pump sprays unless there is no available alternative.

BATTERIES, HOUSEHOLD

USE & STORAGE

Store all household batteries out of reach of children and pets and away from sources of heat.

DISPOSAL

Best: Recycle as many as possible.

FERTILIZERS, CHEMICAL

USE & STORAGE

Fertilize only as local knowledge or soil tests indicate a need. Use only moderate amounts of both chemical and organic fertilizers to limit the possibility of water pollution. Read the label instructions before using and follow them carefully when applying. Wear nitrile gloves when handling. Don't apply fertilizer if a heavy rain is predicted. Use caution on slopes and lawn edges so fertilizer will not wash into lakes, streams or storm drains.

Use a slow-release fertilizer with at least 50 percent of the nitrogen in insoluble form. Lawns usually need a fertilizer application in October or November and another in mid to late spring. Fertilizers with weed killers (pesticides) are not recommended for lawns because they do not target weeds effectively, often result in unnecessary application of pesticides and may cause damage or death to nearby trees and shrubs. Keep leftover fertilizer tightly sealed in a clearly labeled plastic bag and store in a secure area away from children, pets and moisture.

The most important step to create and maintain a healthy garden is to take very good care of your soil. In order to understand the nutrient status of your soil, have it tested. Correct soil pH problems in order to get the most out of your soil. Your local Lancaster County Extension Office can provide you with more information about soil care and locations to have your soil tested.

ORGANIC VS. CHEMICAL

Organic fertilizers are made from animal or plant parts or byproducts and are naturally high in one or more elements needed by growing plants (e.g., nitrogen, phosphorus or potassium).

Chemical, or synthetic, fertilizers are not made from plants or animals that are produced to be high in one or more elements needed by growing plants. Synthetic fertilizers tend to be water soluble and more concentrated, hence more easily overused and more likely to end up in waterways.

ALTERNATIVES

- Use compost.
- Use natural soil amendments. Use blood meal, fish meal, fish emulsion, seed meals, bone meal, rock phosphate, greensand, kelp meal, manure and compost to help supply necessary nutrients to plants.

FLUORESCENT LIGHTS: BALLASTS + HID LAMPS

DISPOSAL

Disposal of ballasts containing PCB:

Using a plastic bag over your hand as a glove, clean up the spills with soapy water on paper towels. Holding the used towels and ballast with your hand inside the bag, turn the bag inside out with your other hand, leaving the towels and ballast inside. Seal the bag. Wash your hands. Bring to a household hazardous waste collection.

ALTERNATIVES

- Use low-mercury fluorescent lamps. Check with your local lighting supply retailers to see if they carry them.

HAND CLEANERS: MECHANIC + PAINTER

USE & STORAGE

Use according to label instructions. Avoid breathing vapors by using in a well-ventilated area. Wash hands with soap and warm water after each application. Keep the container tightly closed when not in use and store in a secure area that is locked or out of reach of children and pets.

ALTERNATIVES

- Keep your hands clean by wearing nitrile or other gloves suited to the job.
- Massage hands with a few drops of baby oil or margarine. Wipe dry and wash with soap and water.
- Try a nontoxic lanolin and glycerin-based hand cleaner.
- Coat hands with hand lotion before doing auto work. Wash hands afterward.

MOTHBALLS + MOTH CRYSTALS

USE & STORAGE

Avoid these products. Store any remaining mothballs/moth crystals in an airtight plastic bag. Store in a locked cabinet or out of reach of children.

ALTERNATIVES

- Kill moth eggs by running garments through a warm clothes dryer.

PAINT: OIL-BASED+STAIN+SPRAY

USE & STORAGE

Determine the amount of paint that you need for the job and buy only that amount. Work in a well-ventilated area away from flames or sparks. Wear nitrile gloves. Store in a secure area away from children, pets or heat sources. Avoid using spray paint or spray applicator whenever possible. **Do NOT smoke while painting.**

ALTERNATIVES

- Choose latex water-based paints that have no or low solvent content. (See "Paint: water-based").

PAINT: WATER-BASED

USE & STORAGE

Keep the container tightly closed when not in use and store in a secure area.

NOTE

The following key words on paint labels can help you determine if paints are oil-based or water-based:

- Water-based: "clean up with soap and water," "latex"
- Oil-based: "clean up with mineral spirits," "contains petroleum distillates," "combustible: keep away from heat and flame," "harmful or fatal if swallowed."

ALTERNATIVES

- Look for paint that is labeled with words such as “low solvent,” “low VOC” or “low odor.”
- Use whitewash (a combination of hydrated lime, water and salt that lacks heavy metal pigments, alkyd resins and other chemicals common in paint) for fences, barns, basements and outbuildings.

PAINT STRIPPERS + PAINT SCRAPINGS

USE & STORAGE

Avoid using solvent-based strippers. Carefully read the label instructions before starting the job. Work in a well-ventilated area that is outdoors in the shade if possible. Wear chemical splash goggles, a respirator with a correct cartridge and filter and heavy rubber or nitrile gloves. Keep container tightly closed when not in use. Store in a secure place away from children and sources of heat or flames.

ALTERNATIVES

- Water and alkali-based paint strippers are less toxic than solvent-based types. They can be identified by a caution rather than a danger signal word on the label.

PAINT THINNERS

USE & STORAGE

Use in a well-ventilated area and wear heavy rubber or nitrile gloves to avoid skin contact. Keep container tightly closed when not in use. Store in a secure area that is out of reach of children and away from sources of heat or flames.

DISPOSAL

Best: Let paint particles settle out, then filter off the clear thinner and reuse. Let the sludge dry out in a secure, well-ventilated area (preferably outdoors). Wrap in newspaper and dispose of in the garbage.

ALTERNATIVES

- Avoid the use of paint thinners by choosing water-based paints that are “low solvent,” “low VOC,” or “low odor.”

PESTICIDES

USE & STORAGE

- Read labels to select the appropriate pesticide for your problem.
- Keep children and pets away from areas pesticides have been applied.
- When applying more than a squirt of pesticide, wear clothing that covers all exposed skin, chemical splash goggles, a respirator with the correct cartridge and filter, and heavy rubber or nitrile gloves.
- After using a pesticide, wash your hands and exposed skin areas before eating or smoking.
- Wash pesticide-contaminated clothing separately from other clothing.
- When a room is treated with pesticides, leave the room for as long as recommended by the applicator or label. Upon returning, open all windows and allow the room to air out. Wash contaminated surfaces.

Always store unused pesticides in their original containers. Store inside a sealed plastic container or a metal container with a lid. Clearly label the container. Do not store near food. Store in a secure area away from children and pets. Do not store metal containers in wet areas or other locations that will encourage the metal to rust.

DISPOSAL

Best: Unwanted, banned or restricted pesticides are accepted at household hazardous waste collection events (for disposal assistance call 402-441-8021). If the pesticides are not expired, banned or restricted, use remaining product according to the instructions on the label or give to a responsible person who will. If your pesticide container is empty and there is no residue left, dispose of the empty container in your normal household garbage.

ALTERNATIVES

Reducing home pesticides use is usually not quite as simple as substituting one product for another, but it is easier than you may think by using a technique called Integrated Pest Management (IPM). IPM can be used depending upon the pest encountered. General steps include pest identification, monitoring, prevention, planning, and use of non-chemical controls can often eliminate the need for toxic pesticides. For additional IPM information local County Extension Office.

POLISHES+ CLEANERS + METAL

USE & STORAGE

Avoid using products that contain hydrofluoric acid. Avoid aerosol products. Use according to label instructions. Keep containers tightly closed when not in use. Store in a locked cabinet or out of reach of children and pets. Avoid aerosol products whenever possible.

ALTERNATIVES

For chrome:

- Wipe with a soft cloth dipped in vinegar. Rinse with water and dry.
- To make chrome fixtures shine brightly, wet with water and rub with newspaper.

For copper and brass:

- Make a paste of lemon juice and salt. Rub with a soft cloth. Rinse with water and dry.
- To retard tarnish, rub brass with a cloth moistened with olive oil after polishing.
- Cover article to be cleaned with catsup. Let stand for a few minutes, then rinse thoroughly and dry.

For silver:

- Rub object gently with toothpaste, using a cotton ball to avoid scratching. Rinse well with water.
Caution: Test first on an inconspicuous area.
- Place a sheet of aluminum foil in the bottom of a pan, add enough hot water to cover object to be cleaned, and add 1 or 2 teaspoons of salt or baking soda. Wait a few minutes until silver is shiny again, then remove, rinse and buff dry with a soft cloth. Caution: Do not use this method on silver plate. Test first.

For stainless steel:

- Use baking soda, olive oil or mineral oil for shining.
- To clean and polish, moisten cloth with vinegar and wipe clean.

WOOD FURNITURE + FLOORS

USE & STORAGE

Avoid aerosol products. Use according to label instructions in a well-ventilated area. Keep the container tightly closed when not in use and store in a secure area out of reach of children and away from heat or flames.

ALTERNATIVES

- For unvarnished wood, apply mineral oil or vegetable oil sparingly with a soft cloth. Let it soak in, then remove excess and buff hard. Almond or olive oils are especially good to use.
- Use a commercial polish made with mineral oil and citrus oil, rather than one containing toxic petroleum naphtha. Mineral oil polishes will not have “danger” warnings on their labels.
- Rub toothpaste on wood furniture to remove water marks. Polish with a soft cloth.
- For scratches, mix equal parts of lemon juice and salad oil. Rub into scratches with a soft cloth until they disappear

SMOKE DETECTORS: IONIZING TYPE

DISPOSAL

Best: Return to the manufacturer (address on base of detector) or retailer.
Second best: Dispose of in the garbage.

ALTERNATIVES

- Choose a nonionizing, photoelectric-type detector. Smoke detectors are important devices for the early detection of fires. All homes should have smoke detectors.

WOOD PRESERVATIVES

USE & STORAGE

Use in a well-ventilated area according to label instructions. Never burn wood treated with preservatives; the fumes will be toxic. Wear nitrile gloves to avoid skin contact. Keep container tightly closed when not in use. Store in a box lined with plastic in a locked cabinet or away from children & pets.

ALTERNATIVES

- Choose cedar when possible. It contains natural resins that prevent decay in the presence of fungi or insects.
- Buy pressure-treated lumber but **Do NOT use for raised bed gardens or edible food. It may leach into the soil and be absorbed by plants.**
- For patio furniture, use a water repellent or paint instead of wood preservative.
- For raised bed gardens, use bricks, blocks, old lumber, plastic lumber or construct without a retainer.

THERMOSTATS

USE & STORAGE

To determine if a thermostat contains mercury, remove the front plate and look for one or more small mercury switches. If you choose to remove an old thermostat don't remove the switches or dismantle the thermostat. Remove the entire mechanism and store safely until you have an opportunity to dispose of it safely at a household hazardous waste event. If a professional is installing a new thermostat, ask them to recycle it.

In the event of breakage:

- Evacuate the room, turn off the air conditioning/heating system and ventilate the area with fans and windows. This helps volatilize the mercury and allow it to escape outside, where it is less dangerous.
- Because thermostats contain more mercury than a household thermometer, it is recommended that you contact your local Lincoln Fire department (402-441-7363)

ALTERNATIVES

- Consider installing mercury-free thermostats in your home.



GARAGE

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AMMUNITION

USE & STORAGE

Store in a cool, dry area that is locked or out of reach of children and pets.

ANTIFREEZE

USE & STORAGE

Follow label directions. Clean up puddles of antifreeze. Absorb spills with an absorbent material such as kitty litter and dispose in the garbage. Store used antifreeze for disposal in a secure area that is locked or away from children and pets.

ALTERNATIVES

- Choose an antifreeze product that has a low level of toxicity. New formulations contain propylene glycol, which is less toxic if ingested. To switch to a propylene glycol formula it is necessary to completely flush the radiator because different formulations cannot be mixed.

ASBESTOS

POTENTIAL PROBLEMS

Most products and materials made today do not contain asbestos. Until the late 1970s, many types of commercial and residential building products contained asbestos. These products were often not labeled. Some common products that contained asbestos and conditions that may allow release of asbestos fibers include:

- STEAM PIPES, BOILERS and FURNACE DUCTS insulated with asbestos wrapping, block, and paper tape.
- RESILIENT FLOOR TILES (vinyl asbestos and asphalt) and the backing on VINYL SHEET FLOORING may release asbestos fibers during removal.
- CEMENT SHEET, MILLBOARD and PAPER used as insulation or a heat barrier around furnaces and wood burning stoves.

- CEMENT ROOFING SHINGLES and SIDING. These products are not likely to release asbestos fibers unless sawed, drilled, cut, shattered or badly weathered.
- DECORATIVE MATERIAL sprayed on ceilings (common name “pop corn”). Loose, crumbly or water-damaged material may release fibers.
- PATCHING, LEVELING and JOINT COMPOUNDS for walls, ceilings and floors.
- Older household products such as HOT PADS, old IRONING BOARD COVERS and some old HAIRDRYERS.
- AUTOMOBILE BRAKE PADS AND LININGS, CLUTCH FACINGS and GASKETS.

DISPOSAL

Best: Special authorization is given to landfills that handle asbestos waste. Asbestos-containing materials are in friable form when they can be crumbled by hand pressure or if they are subjected to sanding, sawing, drilling or shattering.

Second best: Follow the “best practices” recommendations detailed by the DHHS Asbestos Program regarding inspection, removal, and disposal.

BATTERIES: AUTOMOTIVE

USE & STORAGE

Wear chemical splash goggles and heavy rubber gloves when handling batteries or adding water. Store in a secure area that is locked or away from children and sources of sparks or flames.

DISPOSAL

Best: Trade in your old battery when purchasing a new one. You may get a discount with a trade in. All battery retail outlets are required to take back your old vehicle battery. In Nebraska, it is illegal to dispose of vehicle batteries in the garbage.

ALTERNATIVES

- Buy longer-life batteries so you have fewer batteries to dispose. At least 90 percent of all spent lead-acid automotive batteries in Nebraska are currently recycled.

BRAKE FLUID

USE & STORAGE

Avoid contact with skin. Wash hands after use. Store with lid tightly closed in a locked cabinet or away from children, pets and sources of flames or sparks. If the metal container in which the brake fluid is stored begins to rust, place the container inside a larger plastic container.

CHARCOAL LIGHTER FLUID

USE & STORAGE

Use according to label directions. **Do NOT use indoors.** Keep container lid tightly closed when not in use and store in a locked cabinet or out of reach of children and away from sources of flames.

ALTERNATIVES

- Use an electric charcoal lighter.
- Use a charcoal chimney starter available at retail stores, or you can make your own.
- Use a gas barbecue, if available.

DEGREASERS: AUTOMOTIVE GARAGE

USE & STORAGE

Do NOT mix unwanted degreaser with used crankcase oil. This will contaminate the oil and could make it unacceptable for recycling. Use according to label instructions in a well-ventilated area. Keep container lid tightly closed when not in use and store in a locked cabinet or away from children.

ALTERNATIVES

For general cleaning:

- Select citrus-based degreasers over solvent types.

For battery terminals:

- Use a baking soda and water paste to clean away corrosion. After reconnecting the terminals, wipe with petroleum jelly to prevent future corrosion.

For grease spots on the garage floor:

- Sprinkle cat litter or cornmeal on the spot. Allow to sit for several hours, then sweep up and dispose of in the garbage.

GASOLINE

USE & STORAGE

Do NOT smoke around gasoline. Avoid breathing the vapors when fueling your lawn mower and do not top off your vehicles tank when refueling. When handling gasoline, wear nitrile gloves and thoroughly wash your hands when finished and before eating or smoking.

Never mix gasoline with waste oil or other automotive products, and never use as a cleaner solvent.

Gasoline is probably the most dangerous product commonly found around the home because of its volatility and toxicity.

- Store no more than 10 gallons. The less you have around, the safer you'll be.
- Use only self-venting containers approved by a nationally recognized testing lab (such as UL) and always leave an air space for expansion.
- If possible, store in a storage shed well away from living areas.
- Keep out of direct sunlight.

ALTERNATIVES

- For cleaning grease or dirty oil from car parts, use a non-toxic, citrus-based degreaser.
- Use a push or electric lawn mower and electric power tools.

KEROSENE: DIESEL

USE & STORAGE

See "Gasoline" listing.

Caution: If using a kerosene heater, provide adequate ventilation to remove combustion pollutants, such as carbon monoxide and sulfur dioxide. Use only low-sulfur 1-K grade fuel in kerosene space heaters. **NEVER use home heating oil or other fuels.**

MERCURY-CONTAINING PRODUCTS

ALTERNATIVES

- Silent wall switches: use standard wall switches.
- Blood pressure monitors: use an aneroid (dial gauge), digital or automatic blood pressure gauge.
- Barometers: use an aneroid (spring balance) barometer.

MOTOR OIL + FILTERS

USE & STORAGE

Minimize skin contact with motor oil by wearing nitrile gloves when handling. Avoid using absorbent-containing “easy-change” boxes. Remove old oil filter, turn upside down and drain overnight into oil catch pan. Do not mix carburetor cleaner, solvents, antifreeze, brake fluid, degreaser or gasoline with used motor oil. Store away from children and sources of flames.

ALTERNATIVES

- Purchase re-refined oil if it is available.

The National Oil Recyclers Association estimates that 260 million gallons of oil are improperly disposed of each year in the U.S. – the equivalent of 26 Exxon Valdez oil spills.

POLISHES: CLEANERS + WAXES + AUTOMOTIVE

USE & STORAGE

Avoid aerosol products. Use according to label instructions. Wear heavy rubber gloves. Keep container lid tightly closed when not in use and store in a locked cabinet or out of reach of children and pets.

ALTERNATIVES

For car wash

- Use 2 tablespoons of mild dish detergent plus 2 gallons of warm water.

Wash car over porous surface such as gravel or grass rather than letting rinse water enter a storm drain. You might also take your car to a car wash that recycles or properly handles waste wash water.

For cleaning chrome:

- Use baking soda as a scouring powder on a damp sponge, then rinse well.

For cleaning tires:

- Scrub tires with a brush using mild dish detergent and baking soda.

For windows, windshields and headlights:

- Mix 1/4 cup of white vinegar or 2 tablespoons of lemon juice in a quart of warm water in a spray bottle. Use as you would any window cleaner.

POOL + SPA CHEMICALS

USE & STORAGE

Keep container tightly closed when not in use. Store in a clean, dry, secure and well-ventilated area away from children and pets, flammable materials and sources of sparks. **Never mix pool chemicals together. Wear chemical splash goggles and heavy rubber gloves and do NOT smoke when using. Do NOT stack.**

DISPOSAL

Best: Use up or give to a YMCA, school or a local parks department.

Dispose of empty container in the garbage.

Second best: If connected to a city sewer system, flush small amounts down an inside drain (toilet is preferable) with lots of water. **Do NOT pour pool chemicals down the drain if you have a septic system.**

ALTERNATIVES

- Use ozone or ultraviolet light systems designed to kill bacteria and algae. They reduce the need for pool chemicals.

SEPTIC TANK CLEANERS

USE & STORAGE

Store out of reach of children and pets in a locked cabinet.

ALTERNATIVES

There is no chemical solution other than proper maintenance. Generally, if a tank product is effective it is dangerous and if it is safe, it is not effective.

- Install low-flow water use products on your sink, toilet and shower.

SOOT REMOVER + CREOSOTE DESTROYER

USE & STORAGE

Use according to label instructions. Avoid breathing vapors. Wear heavy rubber gloves to avoid skin contact. Keep container tightly closed when not in use. Store out of reach of children and pets.

ALTERNATIVES

- Burn dry, clean wood. Firewood should be seasoned (dried) at least six to eight months before use.
- Use a flue brush.

TRANSMISSION FLUID

USE & STORAGE

When changing your transmission fluid, wear nitrile gloves to avoid skin contact. Drain used fluid into a metal or plastic catch pan. **Do NOT use absorbent-containing "easy-change" boxes to catch your used fluid.** The fluid cannot be recycled once in these boxes. Pour fluid into a well-rinsed, nonbreakable container with a screw-on lid (milk jugs work well). Store away from children, pets and sources of ignition. **Do NOT mix with used motor oil or other automotive products.**

WINDSHIELD WIPER SOLUTION

USE & STORAGE

Avoid using solution that contains methanol. Use in a well-ventilated area. Wear nitrile gloves to avoid skin contact. Keep container tightly closed when not in use. Store in a secure place.

DISPOSAL

Best: Use up or give away. Rinse and recycle empty containers.
Second best: If connected to a city sewer system, flush small amounts that **Do NOT contain methanol** down an inside drain (toilet preferably) with a lot of water. Do not flush to a septic system.

ALTERNATIVES

- Look for the least toxic product available
 - Make your own fluid using:
 - a gallon jug
 - 1 quart of alcohol (rubbing)
 - 1/4 cup of vinegar
 - a few drops of liquid soap
- Fill with water, mix, fill car container.



PERSONAL CARE

- **Fingernail Polish + Remover**
.....**37**
- **Hair Products:.....37**

FINGERNAIL POLISH + REMOVER

COMMON HAZARDOUS INGREDIENTS:

Acetone, benzene, ethyl acetate, formaldehyde resin, phenol, toluene, tricresyl phosphate, xylene

POTENTIAL HAZARDS

Flammable, highly toxic, vapors easily inhaled, irritant to skin and mucous membranes, air pollutant. Benzene is a known carcinogen.

USE & STORAGE

Use according to label instructions. Minimize exposure to vapors by turning on the bathroom exhaust fan and opening a window when using these products and leaving the room after you have applied them. Keep bottles capped when not in use and store away from children.

ALTERNATIVES

- There is a toluene-free nail polish available commercially that is somewhat less toxic.

HAIR PRODUCTS

(permanent wave solutions and hair coloring)

Common hazardous ingredients include amines, ammonium lauryl sulfate, ammonium thioglycolate, diethylenetriamine, phenacetin, vinyl acetatesome. Hair colorings contain cadmium, cobalt, copper, lead.

POTENTIAL HAZARDS

Irritant to the skin, eyes and lungs; chronic irritation may occur if ammonia-containing products are used over long periods of time.

USE & STORAGE

Follow label directions. Use in a well-ventilated area. Avoid contact with eyes. Keep container tightly closed when not in use and store in a secure area away from children.

ALTERNATIVES

- Use ammonia-free hair styling products.



MEDICAL

- **Medical Waste + Sharps...40**
- **Unwanted + Expired Human + Pet Medications, Vitamins, Creams + Ointments.....40**
- **Thermometer-Medical.....40**

MEDICAL WASTE + SHARPS

DISPOSAL

Infectious medical waste is restricted by the Nebraska Department of Environmental Quality. Infectious waste should be properly packaged prior to disposal so that the risk of exposing others to possible infection is reduced. Properly packaged household medical waste can be added to your general household waste or transported to a permitted municipal solid waste landfill. LLCHD recommends the following guidelines for packaging and disposing of infectious wastes generated in the home:

- Place waste in a rigid or semi-rigid, puncture resistant and leak-proof container.
- Mark the container prominently with the universal biohazard symbol.
- Label "Infectious Waste" or "biohazard Waste".
- Seal the container.
- Insure that the outside of the container is free from contamination.

Unwanted + Expired Human + Pet Medications, Vitamins, Creams + Ointments

USE & STORAGE

Read labels on all products carefully before using. Store all medicines with child-resistant caps in place. Keep them in a secure place. Keep all medicines, over-the-counter or prescription, in the original container with the name of the drug and recommended dose on the label.

DISPOSAL

The best management of waste pharmaceuticals is disposal at a pharmacy in your community. Visit www.nebraskameds.org or call the Nebraska Regional Poison Center at 1-800-222-1222 for a location near you.

THERMOMETER: MEDICAL

ALTERNATIVES

•Mercury-free alternatives are digital, aneroid and alcohol thermometers, and for most applications they are as accurate as mercury thermometers. Digital thermometers tend to last longer, however, because they are less likely to break.



ETC.

- **Arts & Supplies.....43**
- **Chemistry Sets.....43**
- **Photographic Chemicals...43**

ARTS + CRAFTS SUPPLIES

USE & STORAGE

When using art supplies containing toxic ingredients, follow label directions carefully, use in a well-ventilated area, and use recommended safety equipment such as chemical splash goggles, gloves, a respirator and protective clothing. Store out of reach of children and pets and away from sources of flames.

ALTERNATIVES

- Choose water-based inks, paints, crayons, glues and cements.
- Use supplies without lead, chromium, cadmium or other toxic pigments.
- Use lead-free solder if possible.
- Use dry mount tissue instead of spray adhesive.

CHEMISTRY SETS

USE & STORAGE

Use chemical splash goggles. Keep lids of chemicals tightly closed when not in use and store out of reach of small children and away from sources of flames.

ALTERNATIVES

- Choose less hazardous experimental sets suitable for the intended user's age level.

PHOTOGRAPHIC CHEMICALS

USE & STORAGE

Use according to label instructions. Cover all exposed skin. Wear chemical splash goggles and heavy rubber gloves. A canopy-type exhaust hood should be sufficient for photography development done occasionally in the home. A bathroom-type exhaust fan is not adequate. When mixing chemical solutions, always add acid to water. Store in clearly marked, nonmetal, unbreakable containers. Keep out of reach of children and pets.



ADDITIONAL RESOURCES

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SIGNAL WORDS

READ THE LABEL

A product is hazardous when it contains one or more of the following properties:

<u>Signal Word</u>	<u>Meaning</u>
POISON	FATAL IF SWALLOWED, ABSORBED THROUGH THE SKIN OR INHALED
DANGER	FATAL IF SWALLOWED, ABSORBED THROUGH THE SKIN OR INHALED
WARNING	MAY BE FATAL IF SWALLOWED, ABSORBED THROUGH THE SKIN OR INHALED
CAUTION	HARMFUL, IF SWALLOWED, ABSORBED THROUGH THE SKIN OR INHALED
NO WORD	LEAST HAZARDOUS, STILL COULD CAUSE ADVERSE EFFECTS

DISPOSAL

If you have unwanted or leftover toxic chemicals and hazardous waste, please handle it with care and dispose of it responsibly. Many toxic chemicals and related products should be taken to a household hazardous waste collection event or site. Some products can be safely recycled or disposed of at local commercial businesses. The annual Waste Reduction and Recycling Guide is also a great place to check for this information. For additional details about the Recycling Guide and hazardous waste collection opportunities in Lincoln and Lancaster County, Nebraska, check www.lincoln.ne.gov (keyword: household) or call the Lincoln-Lancaster County Health Department at 402-441-8021.

GLOSSARY

Absorption: The uptake of substances by the skin, respiratory and gastrointestinal tract. Also refers to the uptake of substances by plant parts or organs.

Acute: One-time or short-term exposure; used to describe brief exposures and effects that appear promptly after exposure.

Acute toxicity: The rapid onset of an adverse effect from a single exposure. Acute toxicity of a compound is not an indicator of its chronic effects.

Adequate ventilation: At least two or three open windows with a fan placed in one of them, the air stream of fan directed outward. One open door or window or a kitchen or bathroom exhaust fan does not create adequate ventilation. (see well ventilated area)

Aerosol: A small particle or a liquid suspended in a gas.

Aerosol product: A pressurized, self-dispensing product form used for a wide variety of chemical specialty products.

Air pollutant: Any substance in air that could, in high enough concentration, interfere with human health or welfare, or harm animals, vegetation or material.

Borax: Also called sodium borate. Hard, odorless crystals, granules or crystal powder. Moderately toxic.

Carcinogen: A substance or agent capable of producing cancer in living animal tissue.

Caustic: A chemical that will burn skin on contact (corrosive effect on living tissue).

Chemical sensitivity: Health problems characterized by effects such as dizziness, eye and throat irritation, chest tightness, and nasal congestion that appear whenever an individual is exposed to certain chemicals, even in small amounts.

Chronic: Occurring over a long period of time, either continuously or intermittently; used to describe ongoing exposures and effects that develop only after a long exposure.

Chronic toxicity: The slow or delayed onset of an adverse effect, usually from multiple, long-term exposures. Chronic toxicity of a compound is not an indicator of its acute effects.

Corrosive: Having the power to slowly dissolve. Example: Some pesticides dissolve rubber hoses, nozzles and other parts of spray machinery.

Combustible: Substance that can easily be set on fire and that will burn readily or quickly. Flammable.

Cumulative: Often the effect of repeated exposures to chemicals is greater than single exposures. The cumulative effect is what occurs from repeated exposures over time.

Desiccant: A substance that induces drying by absorbing water.

Dose: The quantity of chemical administered at one time.

Dusts: Formed when solid materials are broken into small particles.

Exposure: Contact of an organism with a chemical, physical or geological agent.

Flammable: Substance that can easily be set on fire and that will burn readily or quickly.

Fumes: Small particles created in high heat operations such as welding or soldering that become airborne when exposed to heat. Fume particles are very small and tend to remain airborne for long periods of time. Metals, some organic chemicals, plastics and silica can produce fume particles.

Gases: Substances that become airborne at room temperature. They may or may not mix with air.

Hazard: The potential that the use of a product will result in an adverse effect on a person or the environment.

Ignitable: Substance capable of being set on fire.

ADDITIONAL RESOURCES

Inert ingredient: A substance contained in a product that will, by itself, not add materially to the effectiveness of the product. Many inert ingredients are hazardous.

Ingestion: When a substance is taken into the body through swallowing.

Inhale: To take into the lungs by breathing.

Irritant: An agent that produces chafing, soreness, or inflammation, especially to the skin.

Mists (aerosol): Tiny liquid droplets in the air. Any liquid, water, oil or solvent can be in a mist or aerosol form.

Mucous membrane: The tissue that forms the lining of body cavities, such as the nose and mouth.

Organic solvents: A solvent is any liquid that will dissolve another substance to form a solution. Solvents that contain carbon are known as organic solvents. Organic solvents may be toxic and many are flammable.

Pesticide: A chemical or biological agent that kills pests. A pest can be an animal, fungi, insect, plant or any unwanted species.

Petroleum distillates: Mixtures of chemical compounds derived from the distillation of petroleum. Most are highly toxic if ingested.

Pine oil: Derived from steam distillation of wood from pine trees. Used in many household disinfectants and deodorants. Skin irritant and may cause allergic reactions, central nervous system damage in concentrated form.

Poison: Any toxic substance that upsets normal functions in a living organism by surface absorption, injection or ingestion, eventually leading to death if the dosage is sufficiently strong.

Radioactive: Substance capable of giving off radiant energy in the form of particles or rays by the spontaneous disintegration of atomic nuclei.

Reactivity: Tendency of a substance to undergo chemical change. May occur when exposed to other substances, heat, sudden shock or pressure.

Repellent: A chemical or biological agent that makes unattractive to pests a habitat, food source or other site ordinarily sought and frequented.

Respiratory system: Generally the nose, nasal passages and lungs.

Risk: The probability of injury, disease or death under specific circumstances.

Silica gel: Precipitated silicic acid in the form of lustrous granules, especially prepared for absorption of various vapors. Mildly toxic.

Smoke: Formed from burning organic matter. Contains a mixture of many gases, particulates, vapors and fumes.

Solvent: A liquid that will dissolve a substance, forming a solution. See "Organic solvents" listing.

Toxic: Harmful. Poisonous.

Vapors: The gaseous form of any substance that is usually a liquid or a solid. Most liquids vaporize continually. The rate of evaporation increases as the temperature rises. Vapors are easily inhaled.

Volatile: A substance that evaporates quickly, such as alcohol.

Volatile organic compound (VOC): Certain chemicals that readily volatilize into the air and may cause both indoor and outdoor air pollution problems.

Well-ventilated area: Is either outdoors or, if indoors, an area with at least three or more open doors or windows with a fan placed in one of them. The air stream of the fan is directed outward. One open door or window or a kitchen or bathroom exhaust fan does not create a well-ventilated area.

ADDITIONAL RESOURCES

Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services- www.atsdr.cdc.gov

Center for Disease Control (CDC), U.S. Department of Health and Human Services www.cdc.gov

ADDITIONAL RESOURCES

FEMA, Household Chemical Emergencies

www.fema.gov/areyouready/household_chemical_emergencies.shtm

Emergency Planning & Community Right-To-Know Act (EPCRA) - List of Chemicals - www.epa.gov/ceppo/pubs/title3.pdf

Environmental Protection Agency- Safer Choice- www.epa.gov/saferchoice

Environmental Working Group- nonprofit focused on consumer education to reduce toxins in their home and in the products they purchase.

www.ewg.org

www.ewg.org/skindeep

Keep Nebraska Beautiful- www.knb.org

Nebraska Department of Health and Human Services (DHHS)

402-471-8880 - www.dhhs.ne.gov

Nebraska Department of Environmental Quality (NDEQ)

402-471-2186 - www.deq.state.ne.us

Nebraska Environmental Rules and Regulations- www.deq.state.ne.us

Nebraska Environmental Trust- www.environmentaltrust.org

Nebraska MEDS Coalition

402-420-1500 - www.nebraskameds.org

Nebraska Pesticide Act, Nebraska Department of Agriculture

402-471-2341 -www.agr.state.ne.us/regulate/bpi/pes/actbm.htm

Nebraska Recycling Council

402-436-2384- www.nrcne.org/

NDEQ Spill Response

During work hours: 402-471-2186

After hours: 402-471-4545



PUBLIC Every One.
HEALTH Every Day.
Every Where.