

Department of Environmental Protection

Guide to Safely Managing Hazardous Household Products

This document provides information about the health and environmental hazards associated with more than 25 chemicals, materials, and products commonly found in the home, and explains how to handle them safely and recycle or dispose of them responsibly.

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Aerosol Products

Hazards

- Aerosol cans containing propellant are explosive if crushed or incinerated.
- Aerosol propellant can be flammable. Use away from heat or sparks.
- Breathing the propellant may be hazardous to human health.
- Some aerosol cans contain hazardous chemicals, e.g. pesticides, oven cleaner, etc

Handling

- New can with defective nozzle should be returned to the place of purchase.
- Use up the contents or donate to someone who can use it. (The product and propellant are finely measured so that both are exhausted at the same time during usage.)
- Look for warning label on the product. Art materials are non-toxic if the label reads AP (approved product), CP (certified product), or HL (health label).
- Do not put full or partially full cans in the trash; they may explode in a trash truck.

Management Options

Empty aerosol containers:

- A can is empty when you no longer hear any air released when the nozzle is depressed and the can feels empty when shaken.
- If aerosol containers are acceptable in your local recycling program, remove plastic lid and place with recyclables. If not, place in the trash.

Partially full containers that you know do not contain hazardous chemicals:

- To empty the can of its non-hazardous contents, discharge outdoors into a deep cardboard box or paper bag, and allow the box or bag to dry before placing in the trash.
- The empty aerosol container can then be recycled or disposed.

All other aerosol containers:

• Save for a household hazardous waste collection or take to a commercial hazardous waste facility.

Ammunition

Hazards

May be unstable if exposed to heat.

Handling

Keep in a dry location, away from heat.

Management Options

- Call local rod and gun clubs to see if they can use the ammunition.
- Ask your police department if it can use or store the ammunition.
- Arrange for a hazardous waste transporter to ship the ammunition to a specialized treatment facility for safe disposal.

Antifreeze

Hazards

- Toxic to small children and may be deadly to animals attracted by its sweet taste.
- Spent antifreeze may contain metals from engines (e.g. lead, zinc, copper).
- Can disturb the biological action of sewage treatment plants and septic systems.

Handling

- Collect and store spent antifreeze in sealed, labeled, plastic or metal container, away from heat sources, children, and pets.
- Never store in a beverage container; the original container is best.
- Clean up spills with absorbent (e.g. kitty litter, shredded newspaper, vermiculite, rags, etc.); bag these waste materials and discard in the trash. Flush soiled area with water.
- Do not mix with oil.
- Do not dispose down the drain without approval from your wastewater treatment facility.
- Do not dispose of in the trash: liquid wastes can leak.

Management Options

Unused Antifreeze:

• Antifreeze does not go bad. Give it to a friend, mechanic, or school auto shop that can use it.

Spent Antifreeze:

- Some auto repair shops, quick oil change businesses, and new car dealerships accept spent antifreeze for recycling at no charge. Use an online search engine such as Google or Bing to find one in your area.
- Take to a community recycling center, if available.
- Check with your local wastewater treatment facility to see if it can accept small amounts of antifreeze.
- If recycling is not available, take to your next local household hazardous waste collection day or to a commercial hazardous waste facility.

Empty Containers:

• Dispose of these in the trash.

Appliances with CFCs

Hazards

• Appliances such as refrigerators, freezers, air conditioners and dehumidifiers contain chlorofluorocarbons (CFCs), a substance that when released, reacts with ozone in the upper atmosphere, reducing this layer's protective properties against ultraviolet radiation.

Handling

- Handle in a way that does not damage coils containing refrigerants.
- Under federal law, CFCs must be removed before the appliance can be discarded.

Management Options

- White goods large appliances including ovens, washing machines and refrigerators are banned from disposal in Massachusetts. All appliances using CFCs are included in this ban.
- If an appliance is still functioning, call your electric company to see if they have a takeback program for high-demand appliances.
- Most appliance dealers will remove old, unwanted appliances for free or at a small cost when delivering new appliances purchased from them.
- Check <u>Reuse Marketplace</u> or an online search engine such as Google or Bing for freonremoval companies and/or scrap-metal dealers that accept white goods. Ask for certification that CFCs are removed according to EPA protocol. CFCs must also be removed from car air conditioners before they can be scrapped.
- A number of Massachusetts companies accept CFC-containing appliances for recycling. Use an online search engine such as Google or Bing to find one in your area. Fees can vary widely, so it is a good idea to do some comparison shopping.

Art & Craft Supplies

Hazards

- Certain arts and crafts supplies may contain toxic materials; inhalation, ingestion and skin contact may present a health risk.
- Certain solvent-based products may be flammable.
- Certain products contain heavy metals that cause hazardous emissions from waste-toenergy facilities.

Handling

- Know the contents of the materials you use; ask your supplier for a Material Safety Data Sheet or hotline for the product.
- Look for a warning label on the product. Art materials should be non-toxic if the manufacturer has appropriately labeled the product AP (approved product), CP (certified product), or HL (health label).
- Use with caution, wear goggles and/or rubber gloves if needed.
- Provide fresh air to your work area and wear an appropriate mask, if needed.
- Avoid procedures that create dust. Use wet sanding or vacuum equipment to minimize dust levels.
- Clean up wet spills with absorbent (kitty litter, vermiculite, or rags). Keep cleanup materials in closed metal containers and away from heat sources to prevent spontaneous combustion.
- Reduce hazards during mixing of clay, sanding, and glazing by using exhaust ventilation, such as a spray booth.
- Use brushing or dipping methods when possible rather than spraying or airbrushing.
- Use up products such as glues, adhesives, and solvents according to directions.

Management Options

- If you have no further use for the product and it is in usable condition, try to give it away to someone who has a use for it.
- Do not dispose of toxic art and craft supplies down the drain

Aerosol Containers (empty or partially full):

• See: <u>Aerosol Products</u>

Empty Non-Aerosol Containers and Hardened or Solid Non-Toxic Products:

• Dispose of these in the trash.

Liquid Non-Toxic Products:

• Evaporate or absorb liquid with cat litter or other absorbent and dispose in trash.

Toxic Products:

- Leftover paints containing toxics, such as cadmium and chromium, should not go in the trash. Overpack in tight container if danger of leaking. Save these materials for a household hazardous waste collection day or take to a commercial hazardous waste facility.
- Dried up toxic paints and adhesives can be put in the trash.

To learn more, contact: Arts, Crafts & Theater Safety (ACTS)

Asbestos

Hazards

- Microscopic asbestos fibers from friable (loose or crumbling) asbestos can be suspended in air and inhaled. Once inhaled, fibers remain in lungs, causing lung cancer.
- Asbestos may be found in pipe insulation and insulating boards, textured wall surfaces, electrical equipment, floor and roofing tiles and certain adhesives.

Handling

- If asbestos is in good condition, and fibers are not exposed, it does not need to be removed.
- Slightly damaged or loose asbestos can be re-wrapped rather than removed.
- Asbestos should be handled only by an asbestos abatement contractor licensed by the <u>Massachusetts Department of Labor Standards</u>.
- MassDEP requires notification at least ten (10) business days before any asbestos removal activities.
- All asbestos containing materials must be containerized, labeled, and removed in accordance with <u>MassDEP requirements</u>.
- Do not dust, sweep, or vacuum particles suspected of containing asbestos.

Management Options

• One Massachusetts landfill is currently permitted to accept asbestos-containing wastes:

Waste Management Fitchburg/Westminster Sanitary Landfill

165 Fitchburg Road (Route 31) Westminster, MA 01473 Telephone: 800-963-4776

 Some out-of-state landfills and transfer stations are also permitted by their state's environmental agencies to accept asbestos-containing wastes generated in Massachusetts. Two in bordering states are

Waste Management Turnkey Landfill

90 Rochester Neck Road Rochester, NH 03839 Telephone: 800-963-4776

RED Transfer & Logistics

173 Pickering Street Portland, CT 06480 Telephone: 860-342-1022

• Before taking asbestos to a landfill or transfer station, contact the facility to determine if, when, and under what conditions the facility will accept the material. Asbestos

abatement contractors licensed by <u>DLS</u> can be hired to remove asbestos and take it to an approved disposal facility. Asbestos wastes may not be sent to a combustion facility or construction and demolition (C&D) material processor.

• Intact and unbroken vinyl asbestos tile (VAT) and asbestos containing asphaltic roofing and siding material that are removed in accordance with MassDEP regulations may be managed as solid waste and disposed in any MassDEP-permitted solid waste landfill.

For more information, see: MassDEP Asbestos, Construction & Demolition Notifications

Batteries: Automotive

Hazards

• Automotive batteries contain sulfuric acid that can burn skin.

Handling

- Handle batteries with acid resistant or leather gloves.
- Keep sparks and flames away from batteries and don't smoke nearby.
- Never place metal objects on top of the battery because it can cause sparks. Remove rings, chains, and other metallic items before handling.
- Keep batteries right side up.
- Carry in a non-metallic, leak proof container.
- If battery leaks, neutralize any spilled acid with baking soda or calcium carbonate (lime). Flush area with water.
- If acid comes in contact with skin, flush area with water immediately and seek medical attention, if burning continues.

Management Options

- Do not throw in the trash. Automotive batteries are banned from landfills and combustion facilities in Massachusetts.
- Most automotive battery retailers will accept your used battery for recycling when you purchase a new one.
- Many service stations, repair shops, salvage businesses, and scrap yards accept batteries, provided they are not broken or leaking. Use an online search engine such as Google or Bing to find nearby locations.
- Most community recycling centers and municipal household hazardous waste collection events accept automotive batteries.

Batteries: Household

Hazards

• Batteries burned in waste combustion facilities can release mercury or cadmium to the air and water. These metals can enter the food chain and pose health threats to people and the environment.

Battery Categories

- Alkaline Batteries (AAA, AA, C, D and 9 volt). Since 1994, most types contain no added mercury, and contain only trace amounts. These batteries are marked "no added mercury" or have a green tree logo.
- Rechargeable Batteries (including Li-Ion, Ni-Cd, Ni-MH, Ni-ZN and SSLA/Pb) are sold in many sizes and shapes and are marked "rechargeable." Some may be built into small appliances. These batteries generally contain metals that pose risks to human health and the environment.
- Button Batteries (small, round, silver-colored, used in watches and hearing aids): Many button batteries contain mercury, a metal that is toxic to humans when inhaled or ingested.
- Lithium Batteries (AA, C, 9 volt and button; mainly used in computers and cameras). Lithium is reactive with water, and has caused serious fires.

Handling

- Store in a secure, dry place out of the reach of children and pets.
- When storing rechargeable batteries for collection, keep in a vented, non-metal container. Put them in plastic bags before storing them with other rechargeables.

Management Options

- Alkaline Batteries: Batteries currently manufactured in the United States contain no mercury and can be put in the trash.
- Rechargeable Batteries (including Li-Ion, Ni-Cd, Ni-MH, Ni-ZN and SSLA/Pb): Do NOT put in the trash. Take to a retail collection location or a municipal recycling center that accepts rechargeable batteries. There are more than 400 collection sites in Massachusetts that are free to residents. Search Call2Recycle for the nearest location.
- Button Batteries: Do NOT put in the trash. Many stores selling watches or hearing aids will accept spent button batteries. If your trash is handled by a waste-to-energy facility, find out if they have a mercury waste collection program, or hold for a local household hazardous waste collection day.
- Lithium Batteries: Hold for a local household hazardous waste collection day.
- A state contract for battery recycling is available to municipalities and public sector agencies. To learn more, visit the <u>COMMBUYS Electronic Procurement System</u> and search for contract FAC53.

Driveway Sealer

Hazards

• May contain polycyclic aromatic hydrocarbons, many of which are carcinogenic and can be absorbed through the skin.

Handling

- Keep driveway sealer in closed containers.
- Wear rubber gloves when handling.
- Most driveway sealers are now latex products (water-based). Keep from freezing.

Management Options

- Try to use up what you have, if product is usable, or donate to neighbor, paving contractor or other who may use it.
- For surplus latex-based sealer, dry out in small amounts and place in the trash.
- Oil-based driveway sealer can be burned safely in small amounts in a waste-to-energy facility, but trash collectors may not take it if containers are too heavy.
- Dried driveway sealer, either latex or oil-based, can be thrown in trash with lid off.
- For surplus oil-based, take to a local hazardous household waste collection, if accepted, or take to a commercial hazardous waste facility.

Electronics

Hazards

- Electronic equipment and appliances with printed circuit boards may contain lead from solder, mercury in switches, lithium batteries, and heavy metals.
- Cathode ray tubes (CRTs), including televisions and computer monitors, contain from two to five pounds of lead per unit.
- Do not attempt to dismantle CRTs without proper training; dangerous levels of high voltage are stored in CRTs for varying periods of time.
- Implosion may result from impact or improper disassembly procedure. An explosion follows the implosion.

Handling

- Store and handle in a manner that minimizes breakage, especially of CRTs.
- Do not attempt to dismantle CRTs without proper training; high voltage in the capacitor can discharge a lethal shock.

Management Options

- The <u>Electronics Take-Back Coalition</u> provides information on a range of donation and recycling options.
- Check for a municipal recycling collection program.
- A state contract for electronics collection is available to municipalities and public sector agencies. For a copy of the award notice, visit the <u>COMMBUYS Electronic Procurement</u> <u>System</u> and search for contract FAC26.
- If an item is still functioning and usable, try donating to a charity or non-profit group that may be able to use it.
- All other electronic devices, including computer processing units (CPUs), keyboards, small home appliances, stereos, video players, and telephones may be accepted as scrap metal or thrown in the trash if no electronics collection program is in place.
- Note: CRTs were banned from Massachusetts disposal facilities in 2000.

Fire Extinguishers

Hazards

- Contents are under pressure and may explode when combined with other materials.
- Very old fire extinguishers may contain carbon tetrachloride, a known carcinogen.

Handling

- Two most common types include dry chemical (sodium bicarbonate or monoammonium phosphate) and carbon dioxide (CO2) both of which are not hazardous.
- To empty contents, discharge outside, away from children or pets. Monoammonium phosphate is an irritant to eyes and the respiratory tract. Wear goggles and particulate mask when discharging extinguisher.

Management Options

Dry chemical extinguishers:

- May be discharged in an area where an acidic fertilizer would be used such as around evergreens. Do not use on lawns.
- When relieving the pressure (emptying) the container for disposal, review manufacturers' instructions, or, if unavailable, use the PASS technique
 - **P**ull the pin: this unlocks the operating lever and allows you to discharge the extinguisher. Some extinguishers may have other seals or tamper indicators.
 - Aim low: Point the extinguisher nozzle (or hose) at the base of the item.
 - Squeeze the lever above the handle: this discharges the extinguishing agent. Releasing the lever will stop the discharge. (Some extinguishers have a button instead of a lever.)
 - **S**weep from side to side.
- After pressure has been relieved (when nothing else comes out) remove the head from the container and place it with scrap metal or in the trash.

Carbon dioxide extinguishers:

- These extinguishers are refillable and should be refilled after each use. Check for Fire Extinguisher Recharging on an online search engine such as Google or Bing.
- If the extinguisher becomes defective, drill holes in the cylinder after pressure has been relieved and then place in the trash.
- Ask fire equipment companies in your area if they will accept used extinguishers (check an online search engine such as Google or Bing).

Very old fire extinguishers: Consult your local fire department or take to a local hazardous household waste collection or commercial hazardous waste facility.

Flares

Hazards

- Extreme caution must be exercised when lighting flares.
- Flares produce a large amount of smoke when lit.

Handling

• Store flares in a dry location. Keep out of reach of children or pets.

Management Options

- Call the local fire department to see if it can accept them. Some collect flares for donation to fire safety training academies.
- Contact the MassDOT Highway Division district office nearest you to see if it may be able to use road flares for upcoming construction projects.
- Ask the U.S. Coast Guard or a yacht club to arrange a "demo day" for boaters on how to use flares. Note: Do not light boat flares without Coast Guard permission as it is a federal offense to falsely signal an emergency.
- Check with the <u>Coast Guard Auxiliary Flotilla</u> or <u>Power Squadrons</u> to see if they can use them.

Fluorescent Lamps

Hazards

- Fluorescent light bulbs, including energy saving compact fluorescents, contain mercury. When a bulb breaks, it releases mercury - which is toxic to the human nervous system and can poison wildlife - into the air. Fishing in many Massachusetts water bodies is restricted due to mercury contamination.
- When a light bulb breaks, projected shards of glass may injure eyes or skin.

Handling

- Store bulbs in box or case to prevent breakage. Keep out of reach of children or pets.
- Wear glasses when handling lamps.
- See <u>MassDEP Mercury Information</u> to learn more.

Management Options

- Check the <u>Keep Mercury from Rising</u> web site, which provides a list of mercury-added product recycling drop-off locations in Massachusetts, alphabetized by community.
- Burned out but intact compact fluorescent light bulbs, which contain very small quantities
 of mercury, may be brought to any of the numerous mercury recycling drop-off locations
 across Massachusetts.
- A state contract for bulb collection is available for municipalities and public sector agencies. For a copy of the award notice, visit the <u>COMMBUYS Electronic Procurement</u> <u>System</u> and search for contract number FAC26.
- Save for the next household hazardous waste collection in your community, if accepted in your program.
- Do not dispose of in the trash, especially if your community's solid waste goes to a combustion facility.

Gasoline

Hazards

- Gasoline is highly flammable and can be explosive.
- Gasoline contains benzene, a known carcinogen. Benzene and other toxic compounds found in gasoline vaporize readily and can be inhaled.

Handling

- Store gasoline in a labeled container that is approved for gasoline storage.
- Do not fill up the container to the top; leave some air space to allow for expansion.
- Store gasoline in a cool, dry place, away from any motor driven machine that could cause sparks, including washers and dryers. Keep out of direct sunlight.
- Store at ground level, not on a shelf to minimize the danger of falling and spilling.
- Never open or use near open flames or source of ignition such as sparks or cigarettes.
- Always open gasoline containers and use gasoline in a well-ventilated area, preferably outdoors, away from children and animals.
- Do not store gasoline in a car trunk. There is a threat of explosion from heat and impact.
- Do NOT dispose of down the drain, into surface water, or in the trash.
- Do NOT mix with ANY other material, including antifreeze and used oil.

Management Options

• Save for a local household hazardous waste collection or take to a commercial hazardous waste facility.

Home Medical Waste

Hazards

- May infect other people who come in contact with trash.
- Unwanted or expired medicines or pharmaceuticals could be harmful to children or adults.
- Antibiotics poured down the drain can kill beneficial microbes and bacteria in septic systems and may adversely affect fish and other marine organisms.

Handling

• Keep sharp objects such as needles, syringes, and lancelets in secure containers out of the reach of children. Do not use glass.

Management Options

- By law, once a pharmacy has issued a prescription, it cannot take it back. Take unwanted prescription drugs to a <u>permanent waste medication kiosk</u> in or near your community, or to a local collection point on the next <u>National Prescription Drug Take</u> <u>Back Day</u>.
- See <u>Safely Dispose of Prescription Drugs</u> for additional information.
- For cancer treatment drugs or radioactive medicines, follow the issuing hospital's specific disposal instructions.
- Place and seal disposable sheets, medical gloves, and soiled bandages in plastic bags before you putting them in the trash.
- Dispose of medical sharps such as needles, syringes and lancets at local collection site never in the trash. Learn more from the <u>Department of Public Health</u>.
- If no sharps collection program is available, purchase a postage-paid mail-back container to have your sharps disposed through a medical waste incinerator. Several companies offer mail-back programs. Search online for a provider of this service.

Mercury Products & Liquid Mercury

Hazards

- Thermostats and switches contain several grams of mercury in fragile glass bulbs or ampoules. These ampoules (as well as mercury containing thermometers) may break, releasing droplets of toxic mercury.
- Mercury is toxic to the human nervous system, as well as fish and animals. Mercury can
 enter the body either through skin absorption or through inhalation of mercury vapors. At
 room temperature, small beads of mercury will vaporize.

Handling Small Spills

- See <u>MassDEP Mercury Information</u> for instructions on cleaning up broken fluorescent light bulbs and spills of elemental mercury.
- Seal off room from other indoor spaces, ventilate to the outside.
- Take off jewelry and put on rubber gloves. Pick up mercury with an eyedropper or scoop up with stiff paper or card stock, being careful to not touch with skin or clothing. Place mercury in a sealed glass or plastic container and label MERCURY.
- Do not vacuum because it breaks up and heats droplets, facilitating vaporization. Once a vacuum cleaner has been used for a mercury spill, it will continue to release mercury into the air and is therefore safest to discard the contaminated machine rather than continue to use it.
- Use duct or packing tape to clean up remaining small particles.
- Do not wash mercury into drains.
- Do not wash mercury contaminated clothing or items in washing machine.

Handling Large Spills (over 1 pound or 2 tablespoons)

- Immediately evacuate everyone from the room and close the doors. Turn off central heating or cooling system.
- Call MassDEP at 888-304-1133 (24 hours) to report the spill. Notify local health department and ask if they have a mercury spill kit. MassDEP staff will advise you next steps.

Management Options

- Check the <u>Keep Mercury from Rising</u> web site, which provides a list of mercury-added product recycling drop-off locations in Massachusetts, alphabetized by community.
- Burned out but intact compact fluorescent light bulbs, which contain very small quantities
 of mercury, may be brought to any of the numerous mercury recycling drop-off locations
 across Massachusetts.
- To dispose of old thermostats containing mercury, search for a collection site near you.
- Take advantage of a municipal or regional mercury collection center or event, if available. Many communities have ongoing programs for the collection of intact mercury-containing devices, including thermometers, thermostats, and fluorescent lamps.

- Set up a mercury collection program in your town. A state contract for mercury collection is available. For a copy of the award notice, check the <u>COMMBUYS Electronic</u> <u>Procurement System</u> and search for contract number FAC26.
- Some hospitals will take small amounts of mercury from residents as a community service. Call your local hospital environmental services department to see if they will accept it.
- Take mercury containing devices and mercury contaminated clothing to a local hazardous household waste collection or commercial hazardous waste facility.

Motor Oil & Filters

Hazards

- Oil is toxic to fish and other animals and plants.
- One quart of oil can contaminate a million gallons of drinking water.
- Undrained oil filters can contain up to 12 ounces of motor oil.

Handling

- Collect oil in a clean container with screw cap, such as the original container or clean, labeled plastic jug. Do not mix oil with any other liquids. Cap container to keep out dirt and water.
- Do NOT dispose of used oil in the trash, on the ground, down the drain, down a sewer drain, or by burning it (except in permitted oil burners).
- Clean up spills with kitty litter, vermiculite or rags, place in a bag and dispose of in the trash.
- Oil filters: Puncture domed part of the oil filter with a sharp tool. Drain filters on a rack while they are hot for 12 hours, capture the oil for recycling as described above.

Management Options

Used Oil:

- Return used oil for recycling to the store where you purchased it. Retailers are required to accept used oil for recycling (up to two gallons per person per day) if you have the purchase receipt.
- Take your used oil to a municipal collection center, if available.
- Some service stations and repair shops that do not sell motor oil but burn the oil to heat their garage will take back used oil from residents.
- Certain quick oil change chains accept used oil. Check the Yellow Pages online for a location near you.
- Call the MassDEP Used Oil Hotline at 617-556-1022. Also use this number to report retailers who are unwilling to accept used oil from customers who have receipts.

Used Oil Filters:

- Do NOT dispose of an undrained oil filter in the trash. Follow above handling instructions for draining used oil filters.
- Take used oil filters in a sealed bag or container to a municipal collection program in your community, if available. Many communities that collect used oil also collect used oil filters.
- If no recycling program is available in your community, wrap the drained used oil filter in a plastic bag with absorbents such as a rag or kitty litter, and place in the trash.

Muriatic (Hydrochloric) Acid

Hazards

- Muriatic or hydrochloric acid causes severe irritation or burns to skin and eyes.
- Vapors may irritate respiratory tract.

Handling

- Wear clothing that covers exposed skin areas. Use gauntlet-style acid-resistant gloves and eye protection when working with acid.
- Use only in well ventilated areas.
- Always add acid to water never add water to acid.
- Do not mix muriatic acid with any other chemicals.

Management Options

- Do NOT dispose down the drain or in storm drains.
- Do NOT dispose of in the trash: liquid wastes can leak in a trash truck and react with other chemicals.
- Wastewater treatment facilities routinely use muriatic acid. Call your local facility to see if they will accept it.
- To neutralize: In a large, 3-5 gallon plastic container, mix a one-pound box of sodium bicarbonate with a large quantity of water, mix, but leave some of the sodium bicarbonate visible at the bottom of the container. Slowly and carefully add the acid to the mixture stirring cautiously to avoid splashing. When the acid ceases to react (fizzing) and/or the sodium carbonate can be seen as a paste on the bottom of the container, the acid has been neutralized and can then be disposed down the drain. Should the acid not become neutralized, carefully add more sodium bicarbonate to the mixture.
- Take to a hazardous household waste collection or commercial hazardous waste facility.

Paints & Stains

Hazards

- Oil based paints and stains contain volatile organic compounds (VOCs) that vaporize at room temperature; vapors may be toxic when inhaled.
- Oil based paints and stains are flammable store away from sources of sparks or heat.
- Old oil based paints and marine paints may contain lead, mercury, chromium or cadmium, which are toxic to humans, animals and the environment.

Handling

- Containers should be opened in a well-ventilated area. Wear appropriate respirator or cartridge mask when pouring off or mixing large volumes of oil-based paints.
- Identify leftover paint as latex or oil-based. Latex paint is labeled as such or has
 instructions to clean up with water. Oil-based paint may be labeled "alkyd," "contains
 solvents," "clean up with mineral spirits," or "combustible."
- Pourable paint may be reused, unless it contains lead. To test if paint is still good, paint a small test area on clean surface and allow it to dry for 48 hours. Place a piece of masking tape over the paint and pull off. If paint comes off on the tape, the paint is no longer good.
- To store usable paint for long periods of time, cover the opening of the paint can with a piece of plastic wrap and seal the lid tightly. Store the can upside down and away from heat.
- Do not store latex paint outside or in unheated area. Frozen latex paint cannot be reused.
- Do not put liquid paint in the trash or down the drain.
- Do not dry out oil-based paints, stains, or wood finishes for disposal in the trash. The volatile chemicals are air pollutants.

Management Options

For surplus latex or oil-based paints:

- Take to the municipal surplus paint collection program, if available.
- If the paint is usable and there is a reasonable quantity, try to donate it to a community service organization or theater group.
- Latex paint can be disposed of as trash if dry. To dry small amounts, remove lid and let the paint dry in the can. For larger amounts, mix in kitty litter or pour one-inch layers of paint in a cardboard box lined with a plastic bag. Stir the paint occasionally to speed drying. Put completely dried paint in the trash.
- Hardened oil-based paint can also be disposed of in the trash.
- If no reuse or recycling option is available or convenient for oil-based paints, they should be saved for a hazardous household waste collection.
- If no collection is available and the municipality's trash is handled at a waste-to-energy facility, wrap cans of oil-based paint in several plastic bags and place in the trash.

Paints that contain lead, mercury, chromium or cadmium:

- Do NOT use up and do NOT give away. Toxic metals will remain in painted item.
- Take to municipal paint collection program, if accepted, or save for a hazardous household waste collection day or take to a commercial hazardous waste facility.

Empty paint cans:

- Empty paint cans may be accepted in community scrap metal programs. The <u>Steel</u> <u>Recycling Institute</u> has suggestions for communities looking to recycle paint cans.
- If recycling is not feasible, empty paint cans can be disposed of in the trash. Leave lids off so the hauler can see that the can is empty.

Pesticides

Hazards

- Pesticides and herbicides are designed to be toxic to pests and can harm birds, fish, pets, and people if misused.
- If lawn chemicals, pesticides, or herbicides are used in larger doses than recommended on the label, runoff can have an adverse effect on drinking water supplies and the environment.

Handling

- Avoid buying more product than you need, as it is likely to become waste at a later date.
- Store pesticides in original containers that are closed and labeled, in a secure area out of reach of children and pets. Avoid storing pesticides in damp areas where containers may become moist or rusty. Pesticides should NOT be stored near food.
- Follow label instructions strictly about where and how much to apply.
- Do NOT put pesticides in the trash or down the drain.
- Use rubber gloves when handling pesticides and use an appropriate cartridge mask if using products extensively.
- Do NOT use or give away pesticides that may no longer be legally applied. Find out from the <u>Department of Agricultural Resources</u> whether a product is no longer registered for use in Massachusetts.
- For questions on specific pesticides and environmentally friendly products and procedures, such as Integrated Pest Management, contact the state Pesticide Bureau.
- For more information on identifying pesticides, their health hazards, and use and management guidelines, contact: <u>National Pesticide Information Center</u>

Management Options

Banned or Unregistered Pesticides:

• If the pesticide is banned or no longer registered for use, save in original container for the next household hazardous waste collection day.

Registered Pesticides:

- If the product is still registered for use, use up according to directions on the label or donate it to a friend or neighbor who can use it.
- If you no longer have a use for the product and are not able to give it away, save it for a hazardous household waste collection day or take to a commercial hazardous waste facility.

Empty Containers:

• Do NOT recycle or reuse pesticide containers.

- Empty containers should be triple rinsed and then disposed of in the trash. Take the following steps to triple rinse a container:
 - Fill the empty pesticide container with cold water and use the rinse water as if it were full-strength product, in accordance with the label instructions.
 - Repeat this procedure two more times.
 - Do NOT pour rinse water down the drain.
 - Once the container is empty and triple rinsed, it should be wrapped in newspaper and disposed of in the trash.
- Do NOT triple rinse containers for banned or unregistered pesticides. Save these for the next household hazardous waste collection day.

Photo Chemicals

Hazards

- Silver may be found in significant concentrations in fixer solution. Silver is a toxic contaminant that can disturb the biological action of a sewage treatment plant and harm aquatic life such as fish and other organisms.
- Some fixer solutions are corrosive and can burn skin and eyes.
- Some individuals are allergic to sulphites in photoprocessing solutions.

Handling

- Protect eyes from splashes and skin from direct contact.
- Store solutions in plastic buckets or bottles. Keep containers tightly closed when not in use.
- Clearly label containers with the contents.
- Store materials in a secure area that is locked and out of reach of children.
- Keep dark room ventilated when using photographic chemicals.

Management Options

- Photographic waste liquids should NOT be poured down the drain if connected to a septic system.
- In sewered areas, developer and rinse solutions may be poured down the drain.
- Some local photo processing businesses may accept silver bearing fixer waste for recycling and management.
- Take spent fixer solutions to a hazardous household waste collection or commercial hazardous waste facility.
- Check an online search engine such as Google or Bing for private companies in Massachusetts that provide photographic waste recovery services.

Pool Chemicals

Hazards

- Sodium hypochlorite, the active ingredient in most pool chemicals, can irritate eyes and skin.
- Sodium hypochlorite is highly reactive; can cause fire if in contact with organic materials.

Handling

- Handle with rubber gloves.
- Do not mix with ammonia or vinegar as it will produce toxic chloramine gas.

Management Options

- Sodium hypochlorite is the same chemical used in most water treatment facilities. Check with your facility to see if they will accept it.
- Do not dispose of in the trash or down the drain.
- Take to hazardous household waste collection day or commercial hazardous waste facility.

Propane Tanks

Hazards

- Tanks containing fuel under pressure may explode if tank integrity is altered, causing severe injury or death.
- Tanks containing compressed gas may explode in waste-to-energy facilities.

Handling

- DO NOT ATTEMPT TO REMOVE VALVE FROM TANK. Special safety equipment is required to prevent explosion.
- Tanks in good condition with old fittings may be reused with adapter purchased at most propane gas dealers.
- Use up all residual gas, for non-refillable (disposable) tanks
- Do not leave valve open, because escaping gas is a fire hazard as well as a source of air pollution.

Management Options

- Do NOT dispose of tanks containing gas in the trash.
- Many <u>AmeriGas</u> and <u>Blue Rhino</u> retail dealers take back five-pound steel propane tanks, usually at no charge.
- Take to a municipal collection program, if available, or save for a household hazardous waste collection event, if offered.
- Check an online search engine such as Google or Bing for a company that will accept tanks for reuse.
- Scrap metal yards may also accept empty tanks.
- Very small EMPTY disposable tanks (1 liter) can be thrown in the trash. Follow manufacturer's instructions for burning off or venting all remaining gas before throwing these tanks away.

Smoke Detectors

Hazards

• Certain smoke detectors contain a radioactive sensing device, but the radioactivity is so low that it is considered harmless.

Handling

• No special instructions for handling.

Management Options

• Remove the <u>battery</u> and dispose of the smoke detector in the trash.

Thinners & Solvents

Hazards

- Thinners and solvents contain volatile organic compounds (VOCs) that can be toxic to inhale.
- Thinners and solvents can be absorbed through the skin.
- Thinners and solvents are flammable.
- Some solvents are carcinogenic.

Handling

- Keep thinners and solvents in closed and labeled glass or metal containers. Some plastic containers may deteriorate in contact with solvent.
- Store thinners and solvents away from sources of sparks or heat.
- Do NOT put left-over product in the trash or down the drain.

Management Options

- If product is unused, try to give it away to someone else who can use it.
- If the product cannot be given away for reuse, and the municipal paint collection program accepts it, take it there.
- Solvents mixed with paint may be reused. First, let solids settle out and pour off liquids for future use as a solvent. Label container clearly.
- The solids may be disposed of wet at a hazardous household waste collection. Alternatively the solids may be dried out by adding absorbents such as kitty litter or vermiculite, in a well ventilated area, away from ignition sources such as appliances with a motor or pilot light and out of reach of children and pets. Dried solids can be disposed of in the trash.
- Small amounts of used or new paint thinner can be added into oil-based paint. Add to same color paint as that used with the thinner.
- If the thinner or solvent cannot be reused through the above options, save for the next local hazardous household waste collection day or take to a commercial hazardous waste facility.

Wood: Treated

Hazards

- Treated wood may contain Chromated Copper Arsenicals (CCA), Creosote, or Pentachlorophenol.
- CCA, a wood preservative, is not considered hazardous to people with limited contact, but handling precautions are still recommended.
- Creosote is typically used on telephone poles, railroad ties, and marine lumber applications. This tar-like material contains polycyclic aromatic hydrocarbons, some of which are known to cause cancer.
- Pentachlorophenol can be absorbed through the skin. Although health effects to people from limited exposure are unknown, certain animals have developed illness and/or died after being exposed.

Handling

- Aged creosote or CCA-treated wood can be reused in landscaping, although it is preferable to not use it where food crops will be grown.
- Do not burn in a fireplace because toxic compounds may be emitted.
- Wear gloves when handling wood, wear goggles and a dust-mask when sawing and sanding.

Management Options

- Householders may dispose of treated wood in the trash, although local size restrictions may require pieces to be cut.
- Larger loads of treated wood must be delivered to a <u>transfer or processing facility</u>. If you have a vehicle that can deliver a load of wood yourself, determine the location nearest you and call ahead to make sure treated wood is accepted there. Otherwise, use a search engine such as Google or Bing to find disposal contractors who can pick up the load and take it to the appropriate disposal facility.

For more information, see: <u>Q&A: Pressure Treated Wood</u>

Wood: With Lead Paint

Hazards

• Ingested lead paint chips has been proven to cause brain damage in children.

Handling

- Handle items (moldings, doors and windows) in a way that minimizes paint chipping.
- Keep out of reach of children and pets.

Management Options

• Householders may dispose of painted wood in the trash, although local size restrictions may require pieces to be cut.

To learn more, contact the Childhood Lead Poisoning Prevention Program.