

HENNEPIN COUNTY
MINNESOTA



Household Hazardous Waste

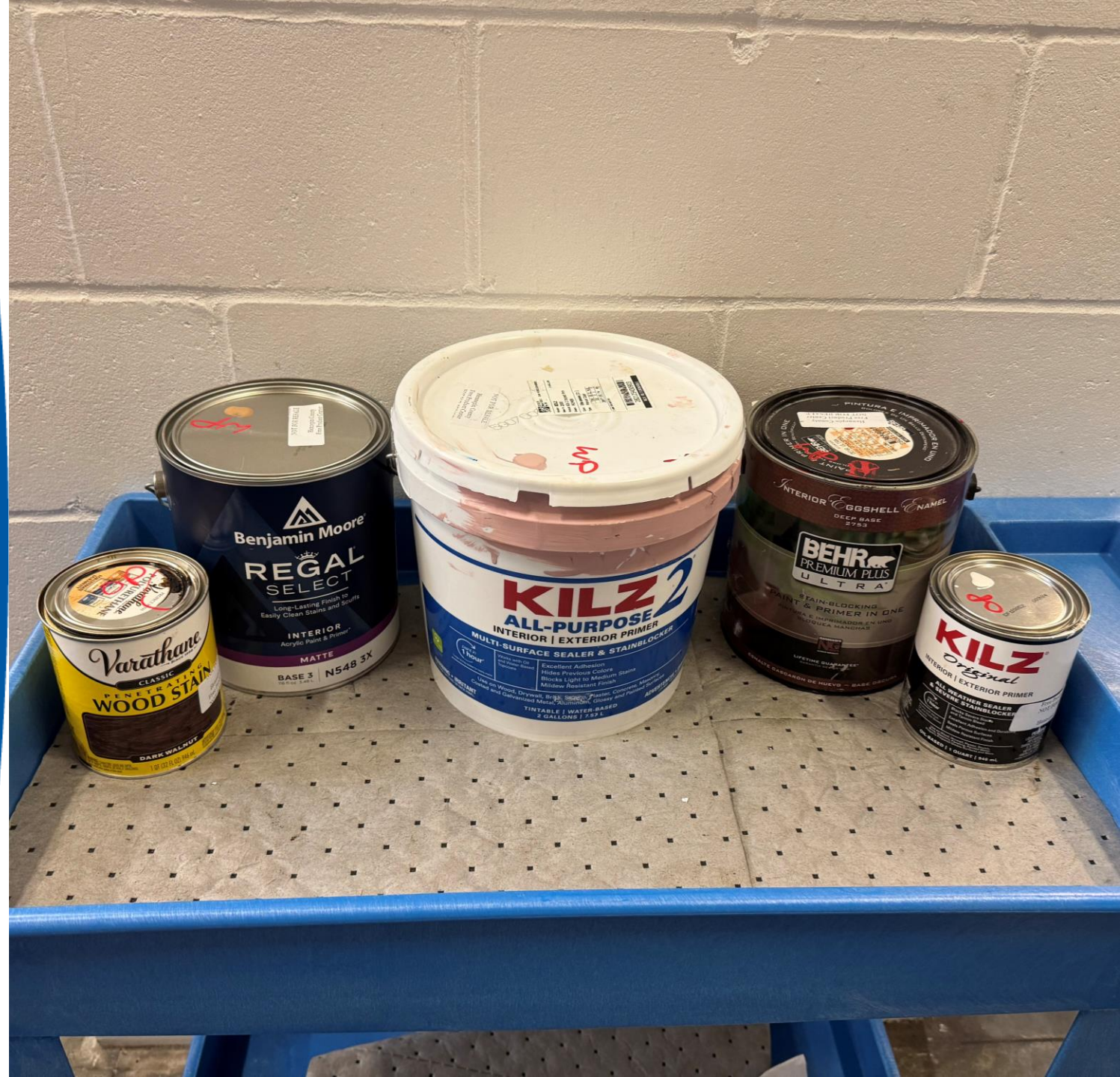
Ryan Gastecki – Environment and Energy

What is household hazardous waste (HHW)?

- Definition from Minnesota Statute 115A.96
- Generated from household activity that exhibits characteristics of hazardous waste or that is listed as hazardous waste under agency rules, but does not include waste from commercial activities that is generated, stored, or present in a household.

Latex and oil-based paints

- Latex paint is water-based and considered non-hazardous
- Oil-based paints are considered hazardous due to flammability and may contain heavy metal constituents used for pigments and durability
- Aerosols included in this category
- Examples of oil-based paints include varnishes, shellacs, lacquers, stains, and sealers



Flammables

- Considered hazardous because of flammability and may contain chlorine or other heavy metals
- Aerosols included in this category
- Examples include gasoline, paint thinner, mineral spirits, kerosene, lamp oil, methanol-based cleaners, bix-stripper, furniture polish, windshield washer fluid, nail polish remover and petroleum-based adhesives



Pesticides/Poisons

- Potential threat to humans, animals or the environment from exposure
- Examples include herbicides, bactericides, insecticides, rodenticides and algacides
- Some are banned or restricted due to long lasting hazardous effects (DDT, chlordane, silvex/2,4,5-T, and chlorpyrifos)
- Aerosols included in this category



Corrosive products

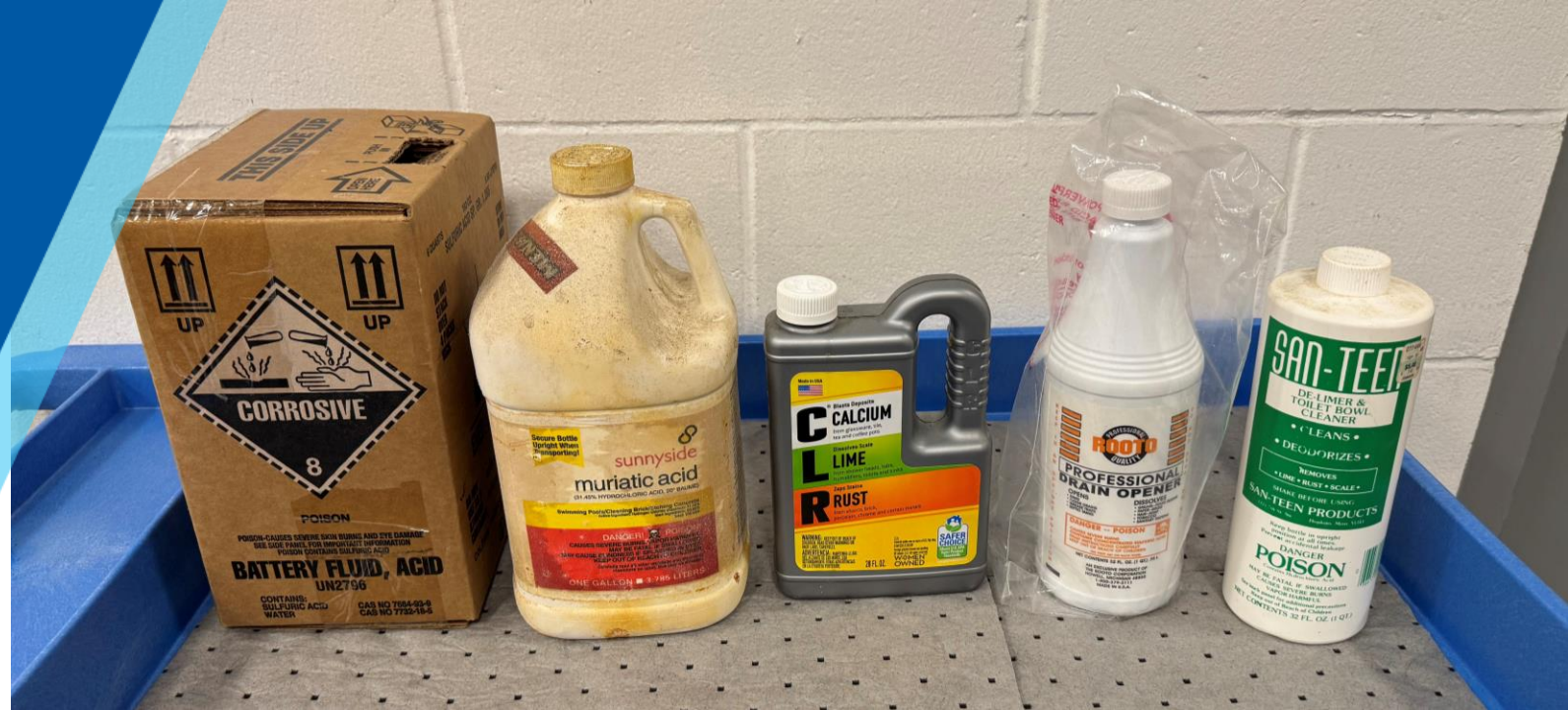
- Acids and bases are considered hazardous because they can burn and corrode other materials
- Acids and bases are found in many household cleaning products used to clean toilets, drains, ovens and pools
- Examples of acidic products include battery acid (sulfuric acid), muriatic acid (hydrochloric acid), drain cleaners (sulfuric acid/phosphoric acid), rust stain remover (hydrofluoric acid), and deck cleaners (oxalic acid)
- Examples of basic products are ammonia-based cleaners, drain cleaners/lye (sodium hydroxide) and bleach containing products (calcium hypochlorite)
- Aerosols included in this category

Concentration of
Hydrogen ions
compared to distilled
water

1/10,000,000	14	Liquid drain cleaner, Caustic soda
1/1,000,000	13	bleaches, oven cleaner
1/100,000	12	Tub & Tile Cleaners
1/10,000	11	Household Ammonia (11.9)
1/1,000	10	Milk of magnesium (10.5)
1/100	9	Toothpaste (9.9)
1/10	8	Baking soda (8.4), Seawater, Eggs
0	7	"Pure" water (7)
10	6	Urine (6) Milk (6.6)
100	5	Acid rain (5.6) Black coffee (5)
1,000	4	Tomato juice (4.1)
10,000	3	Grapefruit & Orange juice, Soft drink
100,000	2	Lemon juice (2.3) Vinegar (2.9)
1,000,000	1	Hydrochloric acid secreted from the stomach lining (1)
10,000,000	0	Battery Acid

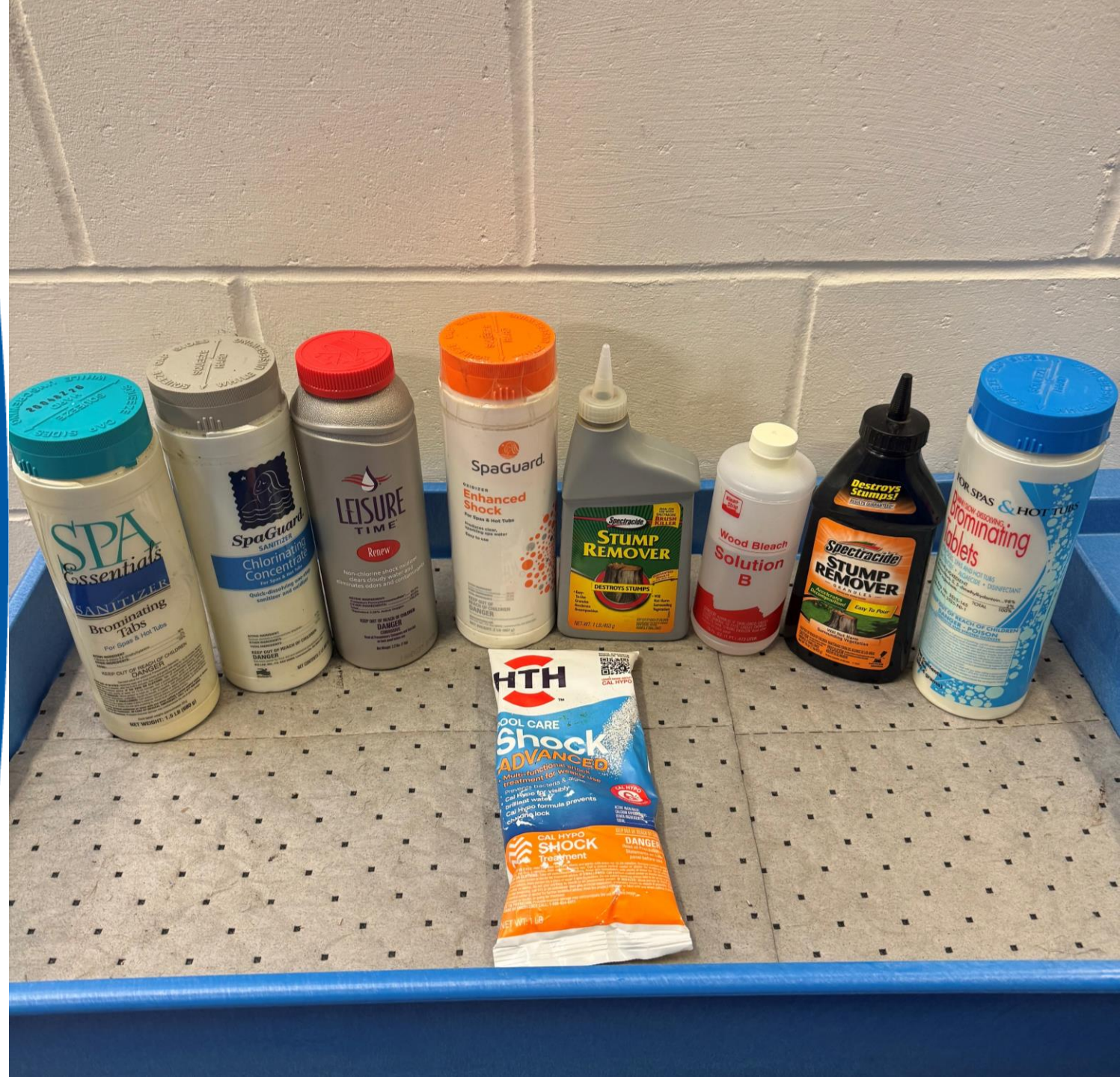
Examples of solutions
and their respective pH

Corrosive products



Oxidizers

- Oxidizers are substances that initiate or promote combustion by providing oxygen or another oxidizing agent
- Oxidizing chemicals are found in many pool chemicals
- Examples of oxidizing products include pool shock (trichloro-s-triazitrione), potassium permanganate (water filtration), and stump remover (potassium nitrate)



Mercury containing items

- Mercury is a neurotoxin and bio-accumulator in the environment
- Even in small amounts mercury is toxic and can cause various health problems in the nervous system, kidneys and immune system.
- Mercury containing items include thermostats, thermometers, mercury switches, blood pressure cuffs, antique clocks, barometers, antique mirrors and skin lightening creams



Mercury containing items



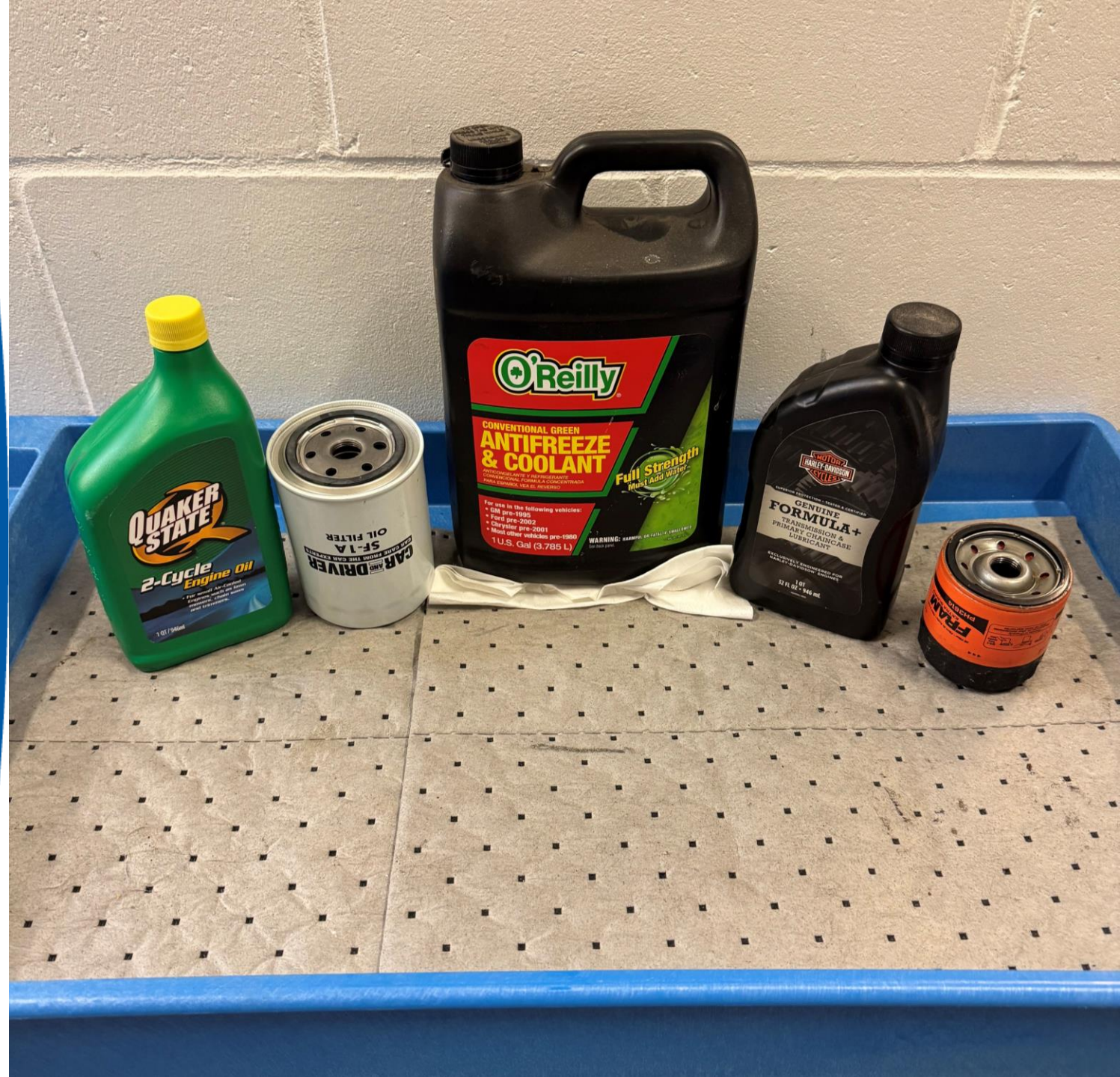
Needles and sharps

- Store in rigid, puncture-resistant, plastic container with a screw-on lid such as an empty laundry detergent bottle
- Label the empty container, "do not recycle: household sharps"
- Put used needles into the container point-first
- Only fill the container half full
- Keep the lid screwed on the container to prevent spills



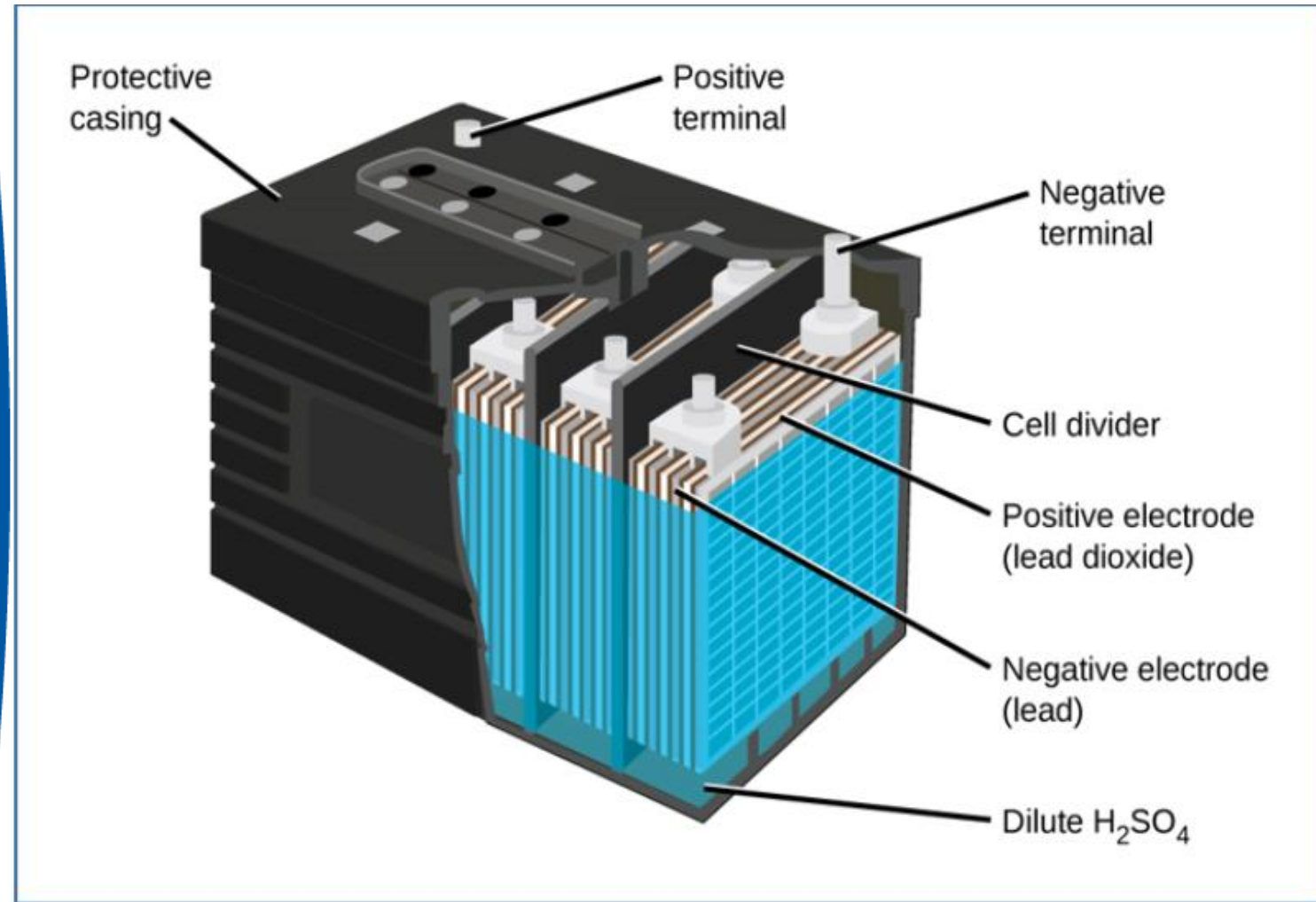
Motor oil, oil filters, and antifreeze

- Motor Oil and filters
 - It is illegal to put motor oil and filters in the garbage, on the land, in water, down a sewer or in a storm drain, per MN Statute 115A.916
 - Do not mix oil with other fluids or fuels
- Antifreeze
 - Antifreeze is more toxic after it has been used
 - Used antifreeze is recycled into new antifreeze



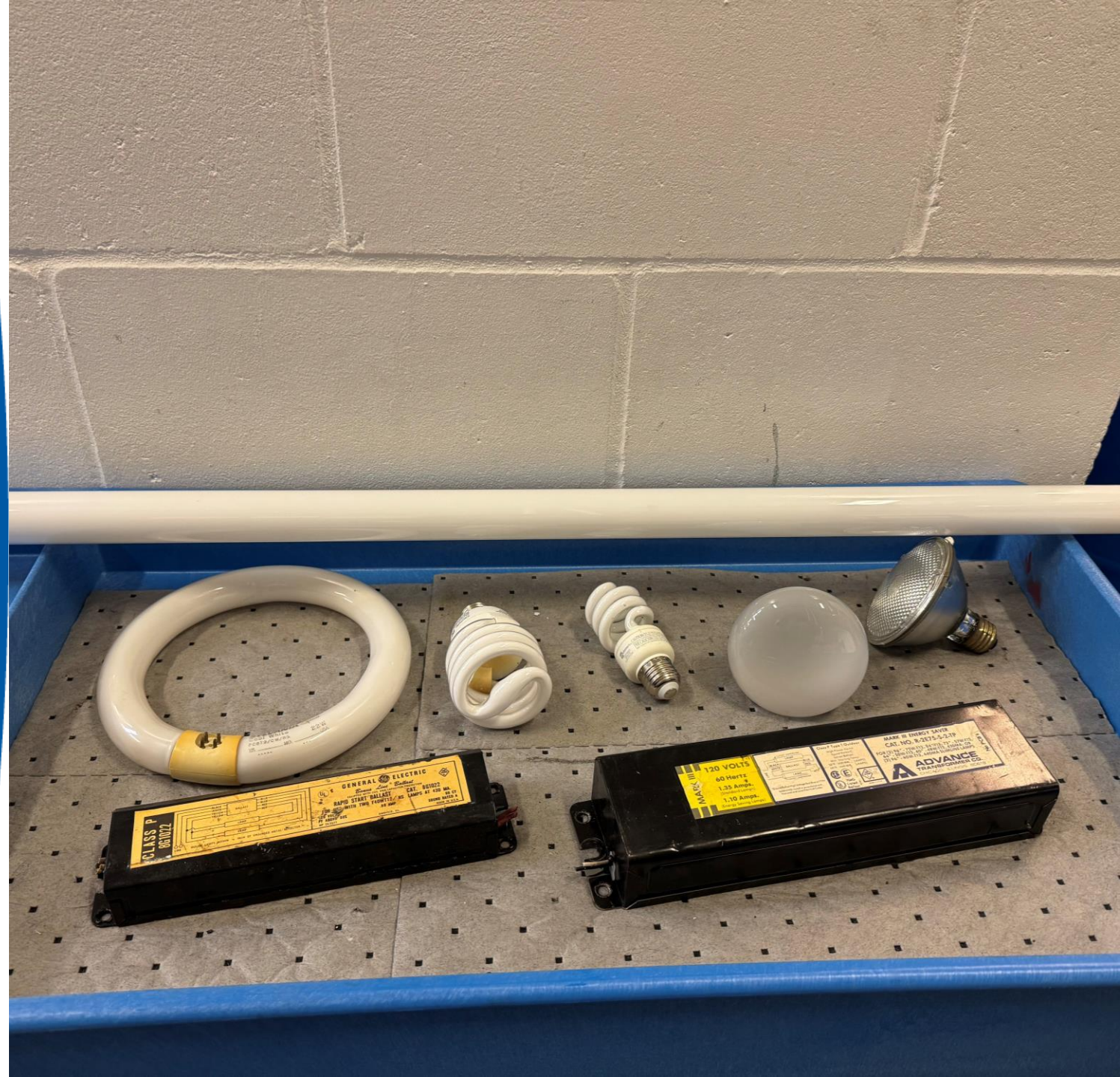
Lead acid batteries

- Found in automobiles, motorcycles, boats and toy cars
- Banned by the MPCA from garbage disposal in 1988
- Contains lead and sulfuric acid
- Lead acid batteries are recycled into raw materials used to make new lead acid batteries and other products



Fluorescent Lamps and ballasts

- Fluorescent lamps banned from garbage disposal by the MPCA in 1992 per MN Statute 115A.932
- Fluorescent lamps contain a small amount of mercury
- Examples include 4 ft/8 ft tubes, compact (CFL's), high intensity discharge (HID), sodium halide, neon, u-shaped and circular
- Ballasts manufactured prior to 1978 may contain PCB's



Household batteries

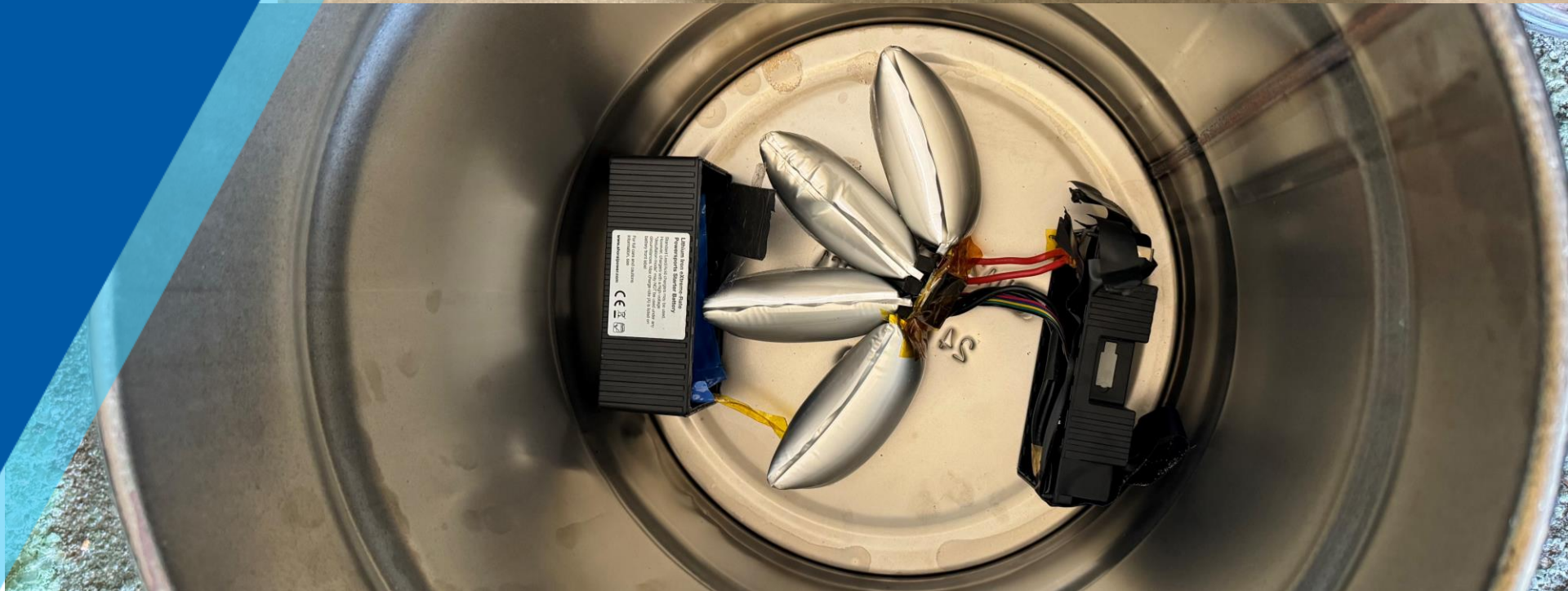
- Battery types are primary (non-rechargeable) and secondary (rechargeable)
- Primary battery chemistries include zinc carbon, alkaline and button cell
- Secondary battery chemistries include nickel cadmium, sealed lead acid, nickel metal hydride and lithium-ion
- Common household batteries may contain cadmium, lead, zinc, manganese, nickel, silver, mercury and lithium
- Minn. Stat. 115A.9157 says rechargeable batteries and products with non-removable rechargeable batteries cannot be disposed as mixed municipal waste

Household batteries

- Battery chemistries can be confusing to the public, bring all battery types to HHW and we will sort
- All battery chemistries are sent for recycling to capture critical minerals
- Do not remove batteries from phones and laptops
- Be aware of damaged/defective lithium-ion batteries as they can start fires



Damaged/defective lithium-ion batteries



Other items our drop-off facilities accept

Problem Materials

Electronics – TV's, computer monitors, laptops, computer peripherals, audio and video equipment, phones

Appliances – air conditioners, dehumidifiers, dishwashers, dryers, freezers, furnaces, gas-powered appliances, garbage disposal, hot water heaters, microwaves, ranges, refrigerators, stoves, sump pumps, trash compactors, washers, water coolers

Tires – less than 4 ft in diameter

Cords and lights

Media – remove DVD's and CD's from plastic jewel cases

Recycling

Mattresses and box springs – Brooklyn Park only

Organics

Mixed recycling – plastics, metal, paper, glass, cartons

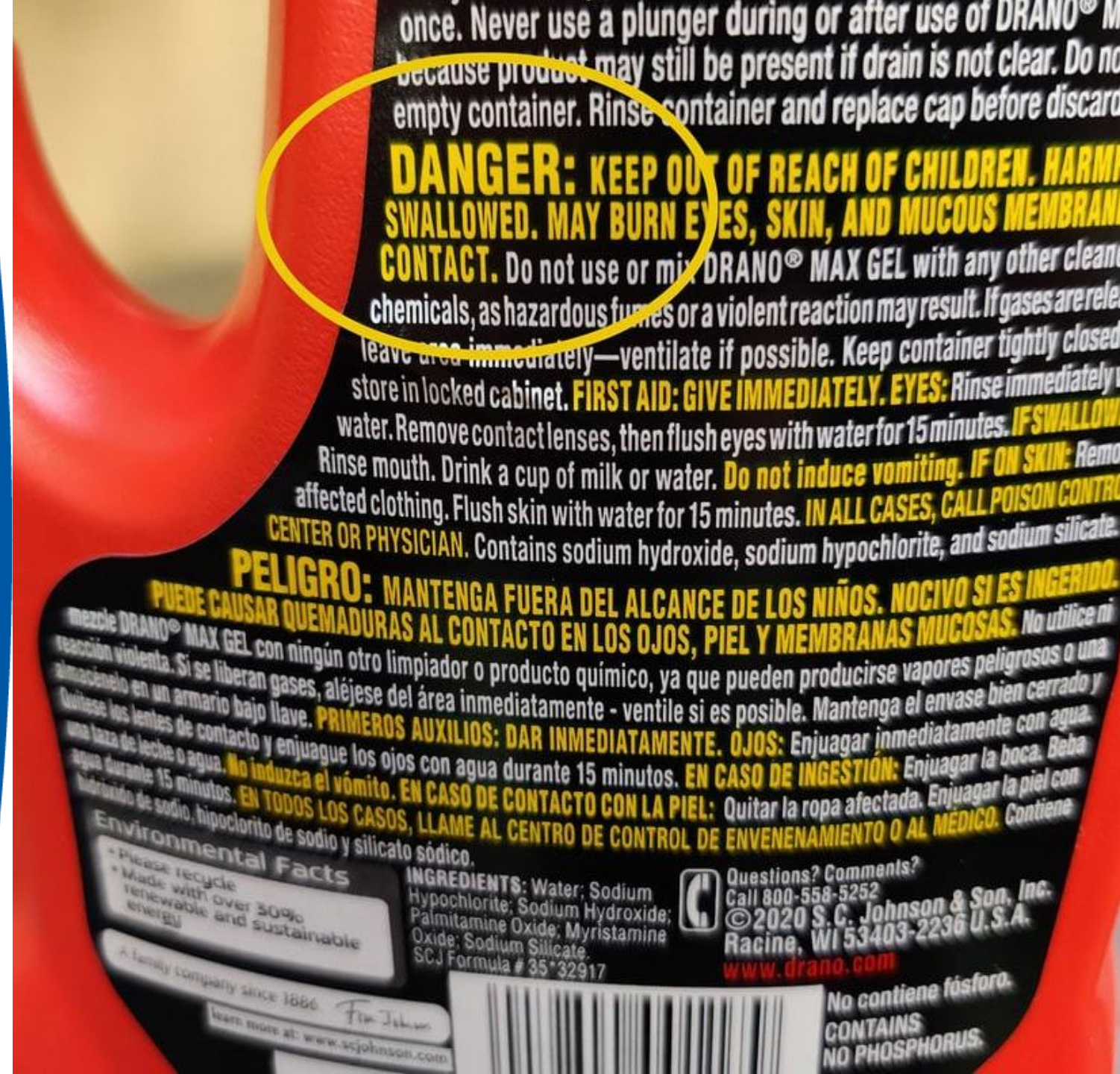
Cardboard – 3 feet x 3 feet or smaller, remove Styrofoam and plastic wrap

Plastic bags

Scrap metal – must remove all non-metal parts and drain all fluids

Label reading

- Signal words such as caution, warning, danger, and poison
- Characteristic words such as flammable/combustible, corrosive, toxic and reactive
- First aid information for eyes, ingestion and skin contact
- Storage and disposal
- Ingredients



Label reading and “green statements”

- Watch for products that may contain the following words
 - Biodegradable
 - Non-flammable
 - Natural
 - No acids
 - Environmentally friendly
- Use products with environmentally friendly certifications such as Green Seal Certification and U.S. EPA Safer Choice
- Make your own cleaning products with vinegar, lemon juice and baking soda



Use products properly

- What is the product's intended purpose?
- Do I need safety equipment?
- Should it be diluted?
- How much product do I need?
- Used in a ventilated area?
- Outside conditions – wind, rain, etc.
- Use away from heat

Use products properly

- Never mix different products together, examples include:
 - Bleach and vinegar
 - Bleach and ammonia
 - Hydrogen peroxide and vinegar
 - Bleach and rubbing alcohol
 - Bleach and toilet bowl cleaner
 - Combining different drain cleaners

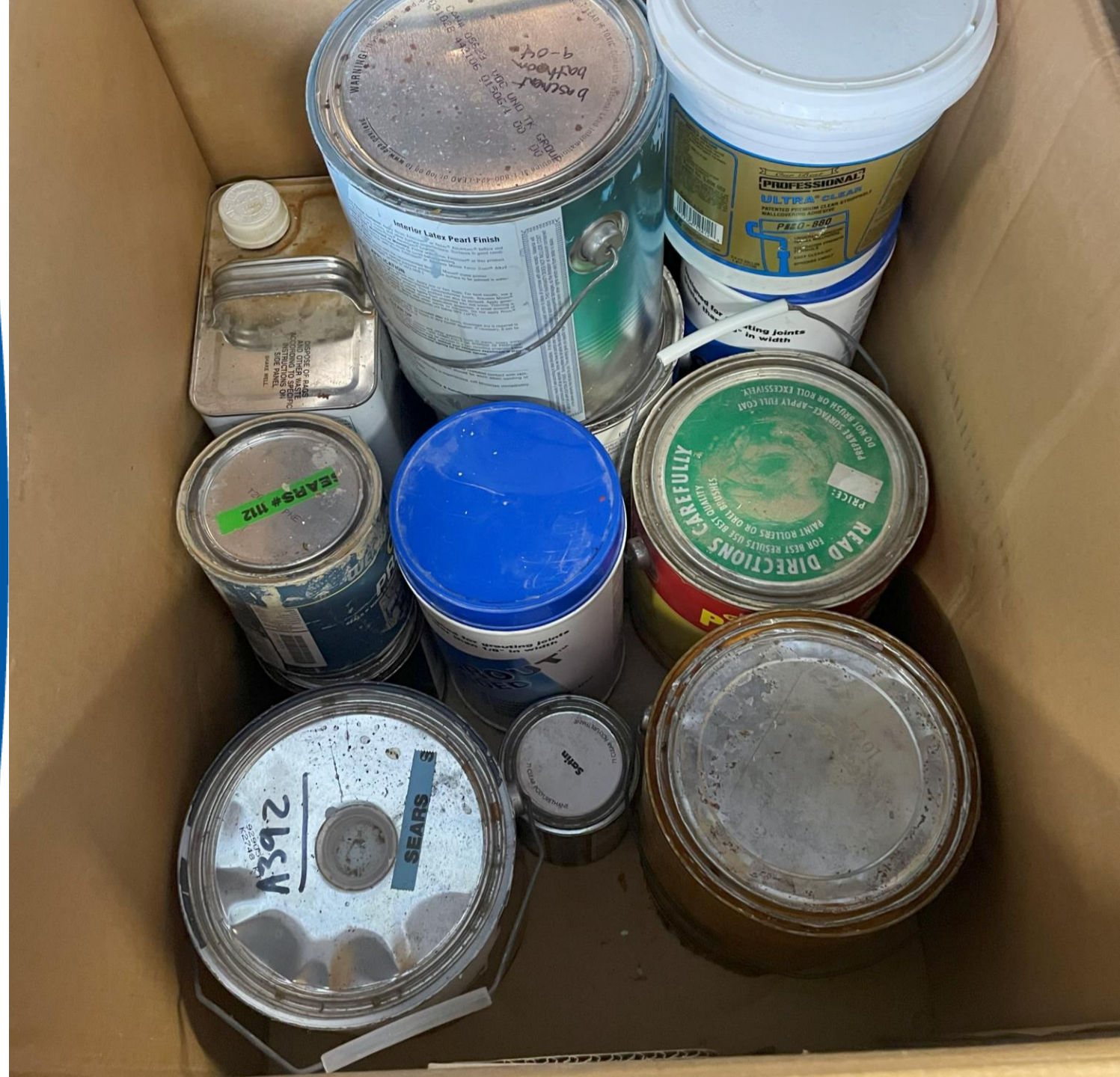


Store products properly

- Store out of the reach of children and pets
- Store in a dry place, don't let products freeze
- Store away from heat
- Store away from food
- Store in original container and make sure the original label is intact
- Do not mix products together
- Lids are tightly sealed

Safely transporting your waste

- Safely transporting your household hazardous waste is for your safety and ours
- Lids are secure and closed
- Items are in upright position
- Place in plastic lined cardboard box
- Items are labeled with the contents



Hennepin County drop-off facilities

South Hennepin drop-off facility

1400 West 96th Street
Bloomington, MN 55431

Hours of operation

Sunday-Monday: Closed

Tuesday to Saturday: 9 a.m. to 5 p.m.

Facility closed for Memorial Day,
Juneteenth, Independence Day, Labor Day,
Thanksgiving Day, Christmas Day and New
Year's Day

Brooklyn Park drop-off facility

8100 Jefferson Highway
Brooklyn Park, MN 55445

Hours of operation

Sunday-Monday: Closed

Tuesday to Saturday: 9 a.m. to 5 p.m.

Facility closed for Memorial Day,
Juneteenth, Independence Day, Labor Day,
Thanksgiving Day, Christmas Day and New
Year's Day

Questions

Ryan Gastecki

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Brooklyn Park Transfer Station

8100 Jefferson Highway

Brooklyn Park, MN 55445

