Equipment	Potential hazards	Standard handling procedures
Electronic balance	Can be knocked off bench, potential injury to feet. Keep back from edge of bench. Danger of electrocution in wet areas.	Keep clean and tidy; remove spilled chemicals immediately. Check wiring for damage each time before use.
Paper cup	Flammable.	Avoid contact with ignition source.
Lab coat	Flammable. Sleeves may catch on objects and knock them over.	Clean regularly. Keep clear of naked flames.
Glass bulb pipette	Possibility of breakage of glass and cuts may result in major hand injuries.	Provide a pipette filler with every pipette. Inspect and discard any chipped/cracked pipettes, no matter how small the damage. Sweep up broken glass with brush and dustpan; do not use fingers.
Pipette bulb		Dispose of old bulb if the rubber becomes cracked.
Safety glasses	May transfer pathogens from one user to the next, e.g. eye infections, flu or coronavirus, which may enter the body through the conjunctiva. Scratched or dirty glasses may hinder vision, causing headaches during prolonged use.	Each student should preferably have own safety glasses. If safety glasses are shared, they should be disinfected between use. Safety goggles may be stored in a tank of detergent solution and removed as needed, rinsed and dried before use. Avoid scratching lenses during storage. Check and, if necessary, clean glasses before each use. Ensure that the safety glasses fit the shape of the face
Stopwatch	If connected to a string, can be swung around on cord to hit people or other objects.	

Alcohol thermometer	Breakage of thermometer.	Sweep up broken glass with brush and dustpan; do not use fingers.
copper (II) $CuSO_4(aq)$ sulfate >0.94 M (>15% wt/wt)	SPLASHES OF LIQUID CAUSE EYE DAMAGE. Toxic. Not recommended for use by K-2 students; teacher demonstration only. Careful teacher supervision required with students in Years 3-6.	DO NOT ALLOW SOLUTION TO SPLASH INTO EYES. Solubility ~200 g/L at 20°C. Disposal <5 mL/day may be poured down the drain. Larger quantities should be placed in a Copper waste container.
hydrochloric acid (aq) <3 M (<10% wt/wt)	Higher concentrations irritate eyes, lungs and skin.	Avoid inhalation of vapour. Disposal <100 mL/day may be poured, with stirring, into 10 times the volume of water, then poured down the drain. Residues should be placed in an Acid waste container
Magnesium carbonate	Not toxic.	May be placed in the garbage
Magnesium oxide	Low toxicity. Fine particles may irritate lungs.	May be placed in the garbage.
sodium hydroxide >1.3 M (>5% wt/wt)	EXTREMELY CORROSIVE TO EYES AND SKIN; EXTREMELY CORROSIVE TO GUT. Releases heat when disssolved in water. Reaction of hot concentrated solutions with the surface of the eye is so rapid that first-aid washing of eye with water cannot be performed fast enough to prevent damage to the cornea, resulting in blindness.	<100 mL/day may be diluted with 20 times the volume of water and poured down the drain. Larger quantities should be placed in an Alkaline waste container.

zinc, powder	Powder ignites on heating and forms explosive mixtures with sulfur, bromine and iodine, or if dispersed finely in air. Not toxic.	Retain for collection by a waste service.
carbon dioxide, gas generated during experiment	Harmless, in quantities generated during experiments. Toxic at high concentrations in air due to absorption through lungs into blood, lowering the pH.	DO NOT GENERATE CARBON DIOXIDE IN A CLOSED CONTAINER SINCE THE CONTAINER MAY EXPLODE. Magnesium burns in carbon dioxide to form magnesium oxide and carbon. Disposal Gas may be released to the atmosphere, provided it is not in an enclosed space.
copper, granules, 0.5-6 mm diameter	Not toxic. Avoid fine particles in the eyes.	Aquatic toxicity increases with decreasing particle size. Disposal <100 g/day may be placed in the garbage. Larger quantities should be retained for collection by a waste service or metal recycler.
hydrogen	EXTREMELY FLAMMABLE GAS. Forms dangerously explosive mixtures with air. Not toxic, but can act as asphyxiant; hydrogen/air mixture in lungs can explode if ignited. Detonation ("popping") of small volume of hydrogen/air mixture in sturdy test tube by ignition with match or wooden taper is generally safe; breakage of	DO NOT GENERATE HYDROGEN IN A CLOSED CONTAINER SINCE THE CONTAINER MAY EXPLODE. Generate hydrogen only in small volumes (<1 mL). Detonate hydrogen/air mixtures only in small undamaged test tubes (<8 cm; <5 mL). Use borosilicate ("pyrex") test tubes; do not use thin-walled soda glass test tubes. Protect against flying broken glass from breakage of test tubes. Disposal

	test tube is possible. Do not ignite or detonate balloons filled with hydrogen gas.	<1 L/day may be released to the atmosphere, provided no ignition source is present.
magnesium chloride	Low toxicity.	May be poured down the drain, to the limit of 100 g/day of dissolved salt.
magnesium hydroxide	Fine particles may irritate skin, eyes and lungs.	May be placed in the garbage.
Zinc chloride	CORROSIVE TO EYES AND SKIN. Toxic.	Retain for collection by a waste service. Residues should be placed in a Zinc waste container.
Zinc sulfate	CAUSES EYE DAMAGE. Toxic. Toxic fumes released on heating.	Avoid particles in the eye. Disposal Retain for collection by a waste service Residues should be placed in a Zinc waste container.