

# Standard Operating Procedure

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## Oxidizer

**Hazard Description:** Oxidizing chemicals are materials that are not necessarily combustible, may, generally by yielding oxygen, cause or contribute to, the combustion of other material.

**Labeling:** Labeling must adhere to the requirements outlined in the Chemical Hygiene Plan. Oxidizers have the following GHS pictogram:



**Storage:** Storage of oxidizers must adhere to the requirements outlined in the Chemical Hygiene Plan. Specially designed corrosion-resistant cabinets should be used for the storage of corrosive materials. If corrosion-resistant cabinets are not available, store on plastic trays. Do not store above eye level. Do not store flammable liquids in chemical fume hoods or allow containers of flammable liquids in proximity to heating mantels, hot plates, or torches.

**Handling:** In addition to the requirements outlined in the Chemical Hygiene Plan the following should be considered when handling oxidizers:

- Immediately close all containers of oxidizers after use.
- Should be used inside a fume hood.
- Perform liquid transfers slowly using a funnel to minimize splash, splatter, and spills.
- Some strong oxidizers will generate heat and/or release gas on contact with water. Understand the potential for reaction with water before diluting a chemical. The water may need to be cooled with continuous stirring while acid is added.
- Reactions involving strong oxidizers are often very exothermic. Use heat-resistant labware and allow extra volume in your vessel to account for expansion and/or foaming. It may be necessary to pre-cool solutions.
- Keep all organic reagents, solvents, paper, and wood away from the area where strong oxidizers will be handled or stored.

**Personal Protective Equipment:** When there is no hood sash to shield the worker, splash goggles and face shield are required. Specialty gloves are required when prolonged contact or immersion of hands in corrosive liquid is anticipated; when large volumes of corrosive liquids are being transferred; and when adding particularly toxic corrosive chemicals. Reference SDS.

**Spill and Decontamination:** Use oxidizer specific spill control materials. Never use paper towels or other combustible materials to clean up spills or decontaminate surface. Put spill cleanup materials in a flammable waste can. Reference SDS.