



## Phenol Safety Quick Guide



**Hazard Alert: Phenol burns can be fatal.** Painful burns are experienced from very small (milliliter) splashes of phenol. Splashing a larger amount on the skin could be fatal – in addition to causing burns, phenol absorbs rapidly through the skin and can affect the nervous system, liver, circulatory system, lungs and kidneys. A splash to the eyes can cause blindness.

**Minimize Volumes Handled, Protect Skin, and Prepare a Phenol Exposure Kit!**

### How to Prevent Phenol Burns:

- Labs using phenol must have a lab-specific SOP
- Purchase phenol in the smallest feasible volume, in the desired concentration
- Wear PPE:
  - Safety goggles, lab coat (buttoned), two pairs 4-mil nitrile gloves. (Phenol can penetrate 8-mil thick nitrile gloves in 10 minutes.) Plan tasks to avoid glove contact. If splashed, change gloves immediately. (If glove contact cannot be avoided, use Viton or butyl gloves, or nitrile over Silver Shield.)
  - If splash is possible: Face shield over splash goggles and apron



Second degree burns caused by skin exposure to 15% phenol solution. From *Burns* 32 (2006), p 517-521.

**Phenol Exposure Kit:** All labs using phenol will keep at least 1L undiluted polyethylene glycol (PEG-300 or PEG-400) in case of exposure. Be aware that skin exposures affecting more than 100 cm<sup>2</sup> of skin require an emergency room visit. Phenol can act as a local anesthetic and can cause extensive damage before pain is felt.