

Cement Burns

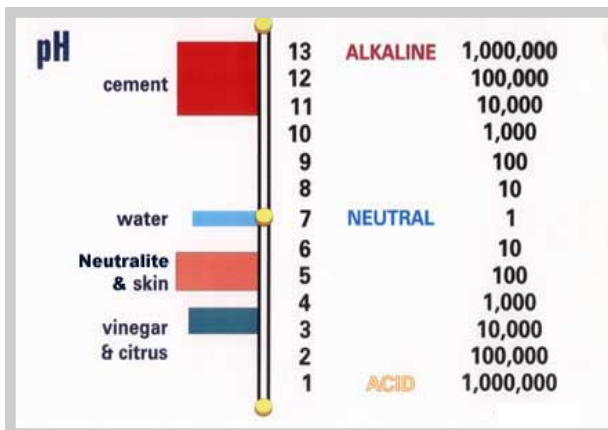
Where's the danger?

Portland cement contains calcium oxide. When water is added, calcium hydroxide is formed. Calcium hydroxide is extremely alkaline with a pH of 12.0 to 13.0. A substance's pH is a measure of its acidity or alkalinity. The pH scale ranges from pH 0 on the acidic end to pH 14 on the alkaline end; pH 7 is neutral.

Every whole number on the pH scale represents a 10-fold change in alkalinity or acidity.

For example: pH 13 is one million times more alkaline than pure water at pH 7. Strong acids are pH 1-3. Strong alkalis (bases) are pH 12-14.

Normal human skin is pH 5.5. Strong acids or alkalis can damage or destroy human skin. Prolonged exposure to alkali in wet cement has been documented to destroy skin all the way to the bone.



Cement Burn Symptoms

The effect of cement burns are not immediately obvious, making it easy for construction workers to underestimate the dangers of wet cement. By the time injuries are apparent, serious damage has usually already occurred. Here are some symptoms to watch for:

- Darkening skin that gradually turns to a deep purple or blue
- Inflammation
- Severe blisters
- Itchy skin
- Sore, red, scaly or cracked skin
- Dead or hardened skin
- Black or green colored skin patches

Cement burns worsen even after the cement has been washed off. See your doctor if you work with wet cement and have any of these symptoms.

Safety Meeting Resources

Keyword: Cement Burns

<http://www.tdi.state.tx.us/pubs/videoresource/stpcement.pdf>

<http://www.osha.gov/dsg/guidance/cement-guidance.html>

http://www.cemstone.com/about_us/material_safety.htm

Research your topic and use these simple questions and steps to get your safety meeting off on the right foot!

1. Discuss why cement burns are important to prevent.
2. How does it affect me and my co-workers?
3. Discuss the prevention of cement burns.
4. Review the proper PPE for cement jobs.
5. Share any personal stories or experiences.