

Tool Box Talk

Concrete Burns

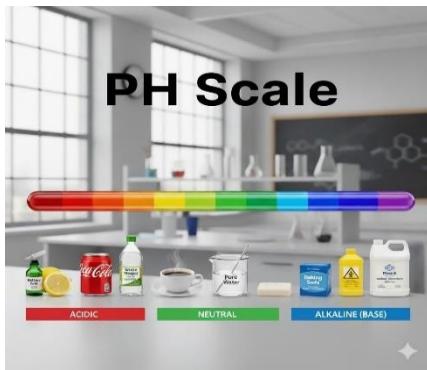
What is a Concrete Burn?

A concrete burn is a chemical burn, and the result of caustic Portland cement material having prolonged contact with your skin. It is particularly treacherous as a burn may develop over a period of hours to days.

A concrete burn has the potential to cause second and third-degree burns that blister, swell, ooze and bleed. Scars and disfigurements can occur in extreme cases. Once these burns have been noticed, they have likely caused damage.

What Causes the Burn?

Portland cement has a pH of 12 to 13. This is a strong alkaline that is similar in strength to bleach. On the flip side, human skin has a slightly acidic pH of about 4.5. This shows how unnatural this material is to our skin.



Prevention

Prolonged exposure to this caustic material can occur when gloves, clothes, boots and other PPE trap the material against your skin. Prevention and awareness are key to ensuring these burns do not occur.

Some basic precautionary measures:

- Appropriate worker training on using and handling concrete materials.
- Review of safety data sheets (SDS) during toolbox meetings
- Assessment and mitigation of all hazards
- Wash hands with pH-neutral soap before putting on gloves
- Wear all appropriate PPE – clean clothes daily, gloves rated for concrete, safety footwear, safety glasses

- Removal of contaminated clothing and PPE.

Concrete Burn Symptoms

Some symptoms of these burns are: swelling, redness, itching, blisters, scabs and pain.

Note that symptoms may worsen over time.

First Aid

- When you notice concrete on your skin, remove any jewellery, PPE and concrete-soaked clothes.
- Brush away dry concrete on skin (before rinsing, as wet concrete can compound the problem)
- Flush the burn or affected area for about 20 minutes with lukewarm water
- Seek medical attention after rinsing skin. Ensure medical staff are notified that this is a concrete burn and special precautions will be needed
- **Avoid applying topical creams or lotions to the burn – this may trap concrete on the skin**

Remember This

Employers have the duty to protect the health, safety and welfare of their workers while they are at work. Train workers on the hazards and how to mitigate them.

Supervisors have the duty to protect the workers they supervise, and workers must protect themselves and others from their acts or omissions.

These duties make it the law to use prevention strategies to protect workers. The best way to prevent harm is to reduce or eliminate exposure to harmful chemicals.

Consider equipment that limits manual handling of concrete. In turn, workers will remain at work longer, without illness or injury.

Sources

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