

# Concrete

## Explain dangers

Cement dust can irritate your skin. The dust reacts with sweat or damp clothing to form a corrosive solution. Cement dust is also dangerous if it gets into your eyes, or if you inhale it.

Wet concrete or mortar can burn your skin or cause skin ulcers if it falls inside your boots or gloves or soaks through your clothes. Concrete finishers who kneel on fresh concrete have had their knees severely burned.

The burns caused by concrete may be slow. You may not feel anything until several hours later. That is why it is important to wash concrete off your skin right away.

Concrete usually contains a metal called hexavalent chromium. This metal causes allergic contact dermatitis (i.e., inflammation of the skin).

Beware of silica, an ingredient in concrete. You can inhale silica from cement dust, or from sanding, grinding, or cutting concrete.

Repeated exposure to airborne silica can lead to silicosis, a disabling and often fatal lung disease. There may also be a link between silica dust and cancer.

## Identify controls

### SILICA

- Make sure you have dust control measures in place.
- Where possible, wet-cut rather than dry-cut blocks and other concrete products.
- Wear an N, R, or P95 mask.
- Wear eye protection.

### MIXING CONCRETE

- Wear an N, R, or P95 mask when pouring or mixing dry cement.
- Wear eye protection when mixing, pouring, and doing other work with dry cement.
- Work upwind from cement dust.

## WORKING WITH CONCRETE

- Wear coveralls with long sleeves and full-length pants. Tuck pants inside boots and duct-tape the top to keep wet mortar and concrete out.
- Use waterproof boots high enough to keep concrete from flowing over the top.
- Wear acid-resistant rubber gloves (e.g., nitrile or butyl). Pull sleeves over gloves or tuck them inside gloves.
- Remove rings and watches because wet concrete can collect underneath and burn your skin.
- After working with concrete, always wash your hands before eating, smoking, drinking, or using the toilet.
- Never wash your hands with water from buckets used for cleaning tools.
- Remove any clothing contaminated by wet concrete as soon as possible. Wear waterproof kneepads or use a kneeboard when kneeling.
- If your skin comes in contact with concrete, wash with cold running water as soon as possible. Flush out any open sores or cuts. Get medical attention if your skin still feels like it is burning.
- If your eyes are exposed to concrete, rinse with cold tap water for at least 15 minutes. Get medical attention if necessary.

## Demonstrate

Ask your crew about the precautions they take when working with concrete.

Make sure they have been provided with a dust mask, safety glasses, rubber gloves, and waterproof boots.

Show your crew where to find the safety data sheet (SDS) for the type of concrete you are using on site. Review the handling and storage procedures, personal protective equipment requirements, and first aid measures.

See related safety talks on Skin hazards—Allergic contact dermatitis (ACD) and Silica.