



CFMEU SAFETY ALERT (industry safety alert 205)

TWO CONCRETTERS GET SERIOUS CEMENT BURNS

New Zealand's Occupational Safety and Health Service (OSH) has published a safety warning after two Otago construction workers received third-degree burns and needed skin grafts after kneeling in wet concrete for up to an hour. The two workers, who were wearing thin cotton overalls, knelt on wet concrete to level the floor of a sump. The skin on their shins and knees was exposed to the concrete for up to an hour before they noticed any discomfort. They ended up being hospitalised for eight days and needed skin grafts.

OSH Otago manager Mark Murray said freshly mixed, wet concrete was extremely alkaline, and prolonged contact with skin could cause chemical burns. By the time a person became aware of cement burns, the damage had already been done. The burn could continue to get worse even after the cement had been rinsed off. **Source: Workplace OHS Date: 4/4/05**

RECENT CEMENT BURNS INCIDENTS

FIRST INCIDENT: On the 14th March at Penrith, an employee was on a concrete pour to slabs and beams, his foot slipped through the beam mesh sinking his right leg into the concrete above the top of his boot and concrete entered the boot. He was also splashed with concrete onto his left leg which ran down his leg and into his boot. He attempted to clean the cement off and kept working to the end of the day. The next morning he started work and felt pain and discomfort. Hours later he was treated in hospital for burns to his feet.



Figure 1

SECOND INCIDENT: On the 8th April 2005 at North Ryde, an employee received Chemical burns from prolonged exposure to wet concrete to right foot after wet concrete entered his rubber boot. He followed correct procedure by cleaning his foot and rubber boot and continued working for a further 2 hours; he did not notice any further concrete in his left boot. The next morning he noticed discomfort in the Left foot where it was found he had serious cement burns.

FIRST-AID TREATMENT OF CEMENT BURNS

A recent study published in the official journal of the *American Society of Plastic Surgeons* (ASPS) by Dr S. Milner released in April 2003 shows that common "Household Vinegar" can minimise Alkaline Burn Injuries.

The first few minutes after contact with an alkaline substance are the most important in managing the burn, once the alkaline penetrates the skin it progressively kills tissue, even though you think there is nothing there. It was emphasized that alkaline burn victims should initially wash the substance off the affected area with clean water, applying vinegar then helps to neutralise the substance 15 minutes faster than water alone, drastically reducing damage.

PROTECT YOUR EYES FROM BURNS - ALKALI BURNS ARE THE MOST DANGEROUS FOR YOUR EYES

Alkalis—chemicals that have a high pH—penetrate the surface of the eye and can cause severe injury. In general, more damage occurs with higher pH chemicals.

- Common alkali substances contain the hydroxides of ammonia, potassium, sodium, calcium, and magnesium.

- Substances you may have at work that contain these chemicals include; cement, lime, and ammonia. Eye damage from chemical burns can be very serious. In all cases of eye contact with chemicals, flood the eye with water immediately, continuously and gently for at least 15 minutes. Hold the head under the tap or pour water into the eye using a clean container. Keep the eye open as widely as possible during the flooding. Do not use an eye cup or bandage the eye. Do not apply ointments, oils or salves. See a doctor and explain the cause of the injury.

DO NOT USE VINEGAR IN THE EYES - The study recommended that vinegar should not be used for alkaline burns to eyes.

PREVENTION: It is recommended to use chemical goggles or safety glasses to prevent eye contact with cement or wet concrete and prevent the alkaline to gradually damage the inside of your eyelids or your eyes.

Exposure to a chemical that has alkali substances such as cement could cause these eye injuries –Figure 2



SAFE WORK GUIDELINES WHEN WORKING WITH CEMENT

- Avoid splashing concrete as much as possible when placing concrete.
- When working with cement you must wear your safety glasses to prevent cement or wet concrete entering your eyes, as the alkaline may permanently damage your eyes or the skin around your eyes or eye lids, by the time you know about it, “its too late the damage is done .”
- Always minimise exposure time to wet concrete on your skin, by promptly washing it off with clean water as soon as you can.
- When pouring concrete use the sock the protectors that will be provided to you to prevent concrete splashing inside boots.
- If wet concrete enters your rubber boots, wash your skin thoroughly with clean water and if you notice a red patch of skin apply vinegar to that affected area. Your socks will also have alkaline in them so do not put them back on unless they have also been rinsed out, it is a good idea to carry a spare set of socks just in case.
- Make sure your boots are washed and all cement is washed out with clean water, it is advised you change socks if possible.
- Report any incident to your supervising foreman and see first-aid if you feel any discomfort or if you see redness on the skin.
- If an incident occurs, the foreman or supervisors must allow employees to stop work to clean up and seek treatment.

Figure 3

It is CFMEU Safety Policy that this PPE must be used as indicated on Safe Work Method Statements.



PRINT THIS LEAFLET AND PLACE IT ON YOUR NOTICE BOARD AT WORK



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