

FACT SHEET | CONCRETE BURNS

Portland cement is estimated to account for 25% of all work related skin problems worldwide, ready mixed concrete and sand/cement screeds supplied by MiniMicks Ltd (and other ready mixed concrete producers) contain Portland cement. It is important that any person who comes into contact with these products or manages its use should be aware that it presents a hazard to health. There is a high risk of irritant dermatitis or allergic dermatitis if precautionary steps are not taken.

Impermeable protective footwear, coveralls, eye protection and impermeable gloves must be worn as an absolute minimum.

Concrete or sand/cement screeds that are allowed to come into contact with the skin, for example by standing in it without proper protective footwear, kneeling in it or allowing the concrete to fall into boots or gloves, may result in a serious burn or ulcer rapidly developing. These ulcers or burns may take several months to heal and in the most extreme cases skin grafts or amputations may be required.

It is the sodium and potassium oxides from the cement which, in combination with water, form hydroxides that are primarily responsible. These hydroxides (also known as caustic soda or lye and caustic potash) aggressively react to dissolve animal or vegetable matter. Some cements have considerably less alkali than others, mainly depending on the raw material used but there are few, if any, that do not contain some alkalis. Virtually all concrete can be expected to attack the skin; it is only the degree of attack that may vary, and this will depend on the presence of moisture and the length of exposure as well as the alkali content. If the concrete is not in contact with the skin very long or if the concrete and the skin both dry out rather quickly, the attack might not be severe enough to cause trouble. Furthermore, concrete



attack on a callused skin area might not be noted if the attack were brief enough not to eat all the way through the calluses. The best thing to do when the skin comes repeatedly into contact with fresh mortar or concrete is to dry it promptly with a towel or rag. At the end of the working period the area should be washed with water or dilute vinegar until the soapy feeling has gone. Repeated washing during the work period instead of trying to keep the skin dry may make the situation worse.