

# HEALTH & SAFETY PRODUCT DATA

## CONCRETE

### PHYSICAL AND CHEMICAL CHARACTERISTICS

Concrete is a mixture of aggregate, cement and water. Admixture may be added to improve product handling characteristics or the properties of the hardened concrete. The resultant mixture is abrasive and alkaline.

### MAIN HAZARDS

Contact with wet cement mixes such as concrete can cause skin diseases.

- Irritant contact dermatitis is caused by the combination of the wetness, alkalinity and abrasiveness of the cement mixture.
- Allergic contact dermatitis is mainly caused by individual sensitivity to chromium compounds, which may occur in cement.

Cement burns, a form of skin ulceration, may result from contact with freshly made concrete.

- The surface treatment and cutting of hardened concrete can create dust, which may contain quartz. If inhaled in excessive quantities over extended periods, respirable dust containing quartz can constitute a long-term health hazard.

### PRECAUTIONS

Direct skin contact with wet concrete should be avoided. It is also important not to kneel or sit on wet materials as harmful contact can occur through saturated clothing.

Inhalation of concrete dust should be avoided.

### PROTECTIVE CLOTHING

Protective clothing should be worn when handling wet concrete, particularly on the arms, hands, legs and feet; e.g. long-sleeved

clothing and gloves with full-length trousers and impervious boots.

Respiratory protective equipment should be worn during the surface treatment or cutting of hardened concrete where dust is generated.

## **TRANSPORTATION AND WASTE DISPOSAL**

The carriage of concrete is not subject to hazardous substance conveyance regulations and vehicle labelling is not required. In the event of spillage, entry of material to water courses should be avoided.

Unused hardened concrete is inert but should be disposed of in accordance with local legal requirements.

## **STORAGE**

The hardening of concrete can be delayed, extending the period during which the precautions given above should continue to be taken and during which access by unauthorised persons should be prevented.

## **EMERGENCY ACTION**

Where skin contact occurs with wet concrete, either directly or through saturated clothing, the concrete must be washed off quickly. Where eyes contact occurs the area must be immediately and thoroughly irrigated with water. In all cases of doubt, or where symptoms persist, medical advice should be obtained.