

Safety and health alert

04/97 Hydrofluoric acid burns from metal cleaner

Incident

An employee in a crayfish processing factory north of Perth during November 1996 received painful burns to her legs, abdomen, arms, face and eye when using a metal cleaner that contained 8% hydrofluoric acid and 8% sulphuric acid. She required emergency treatment at Royal Perth Hospital.

Even weak solutions of hydrofluoric acid commonly used to clean aluminium rapidly penetrates the skin, destroying soft tissue and bone. In October 1994, a laboratory worker died following burns to 10% of his body caused by concentrated hydrofluoric acid. (See [Significant Incident Summary 18/1994](#)).

Factors

Neither the employer or employee read the label which warned of the hazard and neither party knew that the product contained hydrofluoric acid. No material safety data sheet was obtained by the employer. As a result the employee did not have enough information to use the product safely.

The employee did not receive sufficient training and supervision. Ultimately she used the cleaner undiluted and scrubbed the surfaces. When she got the acid on her skin she did not realize the importance of stopping work and applying first aid measures.

The protective equipment supplied was either inadequate or not useable. Also, appropriate first aid supplies to treat exposure to hydrofluoric acid were not provided.

Recommendations

Employers must:

- obtain material safety data sheets for all hazardous substances and pass the information on to employees. This must occur before or at the time the substance is first used in the workplace;
- ensure employees understand the information in the material safety data sheet;
- provide appropriate training and supervision to make sure the substance is being used safely at all times;
- supply personal protective equipment and clothing including long impervious gloves, face shield, rubber boots and a PVC apron; and
- ensure appropriate first aid supplies, in this case the neutralizing agent calcium gluconate gel, is available at the workplace before the product is used.



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Further Information

Further information can be obtained from the WorkSafe internet site www.worksafe.wa.gov.au, or by contacting customer service on 1300 307 877 or email: safety@docep.wa.gov.au.

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