

Hydrofluoric Acid Burns from Aluminium Cleaner

This *Hazard Alert* is issued to inform users of aluminium cleaning products containing hydrofluoric acid (HF) that this chemical can result in serious burn injuries or death.

Background

Recently there has been one fatality and a number of serious injuries caused by HF burns. The most recent injury occurred in Western Australia where a car cleaner was cleaning the aluminium tray of a ute with a spray pack of aluminium brightener. The solution leaked onto his hand and caused substantial burns.

The aluminium brightener contained only 5 per cent HF. However, even weak solutions of HF can rapidly penetrate the skin, destroying soft tissue and bone. As there was no Material Safety Data Sheet (MSDS) available, the injured person was not aware of the extremely hazardous nature of the chemical. He was not provided with appropriate personal protective equipment, and no appropriate first aid supplies were provided to treat the HF burn.

As HF acts rapidly, it is essential to provide an emergency shower for use in case of contamination. After washing the affected area, a neutralising agent (calcium gluconate gel) which will also penetrate skin must be applied to the affected area. Prompt action is the key to reducing the extent of injuries.

Preventive Measures

In order to prevent the recurrence of similar incidents, it is essential that employers ensure that:

- Less dangerous alternatives to HF, where available, are used.
- Adequate training on the safe use of the product and first aid procedures are provided wherever a HF burn hazard exists.
- Calcium gluconate gel, an emergency shower and an eye wash are readily available wherever HF is used.
- MSDS's for all hazardous substances, including HF, are readily available, and that employees are familiar with the information in the MSDS.
- A safe system of work is implemented and supervised so that safe work practices are adhered to.
- Appropriate personal protective clothing is provided and used to prevent any skin contact and any possibility of eye contact.

Duties under the ACT *Occupational Health and Safety Act 1989*

The ACT *Occupational Health and Safety Act 1989 (the Act)* imposes a duty of care on all parties to take all reasonably practical steps to ensure that plant, equipment and substances used in the workplace present no risks to health or safety. Penalties exist for breaches of *the Act*.



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