

Cleaning – Using caustic cleaners

What is the problem?

Caustic chemicals that are highly alkaline and corrosive are widely used as cleaning agents in industries such as food, hospitality, health and metal cleaning. The most common caustic chemicals are liquids containing either sodium hydroxide or potassium hydroxide.

What are the risks?

Caustic chemicals can cause severe chemical burns to the eyes and skin, depending on their concentration. Eye contact with caustic chemicals can result in permanent damage, including blindness.

Eye contact with caustic chemicals is an emergency that needs to be treated immediately to minimise the risk of permanent eye damage and possible loss of sight.

What is a solution to the problem?

The risk can be eliminated or reduced by:

- eliminating the use of the chemical (eg use a scourer with hot water and a mild detergent to do the job)
- using a chemical that is not corrosive (ask your supplier if there is a safer alternative)
- purchasing a more diluted form of the chemical that will do the job
- applying the chemical in a safer form (eg foam instead of a fine spray)
- changing the process or work practices (eg cleaning more frequently) so the items to be cleaned are not as heavily contaminated and therefore a milder chemical can be used
- using an automatic dispensing/diluting unit to minimise handling of the concentrated caustic chemical

- purchasing the chemical in smaller containers (eg one or two litre) that are easier to handle if decanting manually
- fitting a dispenser or pouring device to the container to minimise the risk of splashing
- preventing the potential for splashing (particularly for large scale operations using large tanks of caustic solution) and keeping people further away from where splashes may occur
- using appropriate personal protective equipment (eg gloves, eye protection – refer to the material safety data sheet)
- providing plumbed-in emergency eyewash facilities close to where caustic chemicals are used (see note below).

Note: Eyewash bottles must not be used as the primary emergency eyewash facility for a splash of caustic chemical to the eyes. Eyewash bottles may be used to provide immediate flushing. The injured person should then proceed to a plumbed-in eyewash and flush the eyes for at least 15 minutes.

A plumbed-in eyewash facility meeting AS4775 – 2007 *Emergency eyewash and shower equipment* needs to be provided where caustic solutions containing two per cent or more of potassium hydroxide or sodium hydroxide are used.

Further Information

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