

Safety and health alert

03/96 Employee burnt in solvent fire

Incident

An employee received third degree burns to 50 per cent of his body in a solvent fire at a Kewdale paint manufacturer in November 1995. The employee spilt solvent on his overalls while transferring 20 litres of flammable solvent into a 1000 litre pot. The employee left the pot to decontaminate himself, and as he walked past the rear of an operating fork-lift the solvent ignited, setting his overalls on fire.

Factors

It is alleged that:

1. the fork-lift did not comply with Australian Standard AS2359.12 - 1996 and should not have been used in a hazardous area with a potentially explosive atmosphere.
2. the metal containers used to decant the solvent were not bonded or earthed according to AS1020 - 1995.
3. a 1 to 5 mm layer of non-conducting paint on the floor made a static charge more likely.
4. the employee's non-conducting safety shoes made a static charge more likely.
5. the method of transferring the solvent allowed the spillage to occur.

Recommendations

1. Employers must provide a safe system of work for transferring flammable liquids with risk of manual handling injuries or liquid spillage. Options include pumping, mechanical aids and head tanks.
2. Work with flammable liquids must be according to the manufacturer or supplier's Material Safety Data Sheet. AS 1940 - 1993 also provides guidance
3. All metal containers, persons and machinery used for transferring flammable liquids should be earthed according to AS1020 - 1995.
4. Forklift trucks used in hazardous areas defined in AS 2430.3 - 1991 should be maintained and used according to AS2359.12 - 1996.

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.

Date: March 1996

A414257

