

# 14/07 Toxic vapours lead to shopping centre evacuation

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### Incident

Employees of a flooring contractor used a xylene-based concrete sealant to seal a polished concrete floor during a shop renovation at a major shopping centre on a Saturday morning. The employees using the sealant opened the rear doors of the shop under renovation, causing air to blow into the centre and carry the fumes in. The contractor and his employees were inexperienced in the use of this sealant.

Vapours from the sealant caused five employees at an adjacent shop to suffer severe nausea and respiratory irritation. These employees were taken to hospital and released later the same day. A section of the shopping centre was evacuated while fumes were extracted.

The container of sealant was taken to the Chemistry Centre for analysis, as the label did not adequately identify the contents and a material safety data sheet (MSDS) was not readily available in the work area.

### Factors to consider

- Vapours from hazardous substances can travel to areas some distance from the work area.
- Reliance on natural ventilation provides little control over the direction of air and vapour movement.
- In the event of an incident, information on the composition of hazardous substances needs to be readily accessible.
- Water-based floor sealants are available.

### Recommendations

1. When using hazardous substances near other workplaces or members of the public, employers or self-employed people must complete a thorough, documented risk assessment prior to commencement.
2. Consider whether non-hazardous alternative products may be substituted.
3. When using volatile substances near other workplaces or members of the public, mechanical extraction ventilation may be required to manage vapours.
4. The risk of vapours affecting people in the vicinity of the work could be further reduced by conducting such work outside opening hours.
5. If the risk of vapours affecting others cannot be adequately managed, alternative substances or processes will be required.
6. Suppliers of hazardous substances should ensure that adequate ingredient information and risk and safety phrases are marked on labels of hazardous substances.
7. Employers and self-employed people should ensure that the material safety data sheets for hazardous substances are readily accessible at the workplace.

### Further information

Further information can be obtained from WorkSafe's internet site [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au) or by contacting customer service on 1300 307 877 or email [safety@docep.wa.gov.au](mailto:safety@docep.wa.gov.au)

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