



Storage and Spills of Anaesthetic Volatile Agents Procedure

Effective: 8 January 2018

1. Guiding Principles

This procedure relates to correct storage of anaesthetic volatile liquids and the minimisation of intoxication due to volatile spillage. Anaesthetic gases/agents are used in operating theatres during surgical procedures where patients are exposed to relatively high concentrations of anaesthetic gases to ensure they are effective.

2. Procedure

2.1 Storage

The Geraldton and Carnarvon hospitals use the following types of volatile liquids:

- Sevoflurane
- Isoflurane
- Desflurane.

These volatiles are non-flammable and non-explosive liquid administered by vaporisation.

All the three volatiles are to be stored in an upright position in a cool dark cupboard, at room temperature (15 - 30°C). At the Geraldton and Carnarvon hospitals, they are stored in the pharmacy cupboards.

2.2 Spillage

Small volumes of liquid anaesthetic agents will evaporate readily at normal room temperature and may dissipate before any attempts to clean up or collect the fluid are attempted

Large spills such as when one or more bottles of a liquid agent break, specific cleaning and containment procedures are necessary and appropriate disposal is required. The recommendations of the chemical manufacturer's material safety data sheet (MSDS) that identify exposure reduction techniques for spills and emergencies should be followed.

In the event of a spillage:

- the area is to be isolated, including all personnel removed from area
- the spill kit to be retrieved from the dirty utility room near the soluscope machines
- signs are to be displayed and a barricade erected
- personal Protective Equipment (PPE) - gloves, apron, respirator, goggles and shoe protectors, are to be worn
- spread a portion of spill absorbent powder around the perimeter of the spill to contain it and liberally apply to spill

- allow approximately five minutes for spill and powder to congeal, mix together using the scoop and scraper pick up the spill
- have the floors washed and dried using cloths provided in the spill kits
- place in yellow waste disposal bag and seal with black tape provided and label the bag to indicate its contents
- if required, contact supplier of spilled product to obtain advice re safe means of disposal.

3. Definitions

Volatile Liquid	A liquid that evaporates at room temperature, this is due to their weak intermolecular forces
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4. Compliance

Failure to comply with this procedure may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Employment Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

5. Roles and Responsibilities

All theatre staff trained in the area of anaesthetics are to be educated on the process if a spillage occurs and where the spill kits are located.

The Workplace Occupational Safety and Health (OSH) representative for theatre is responsible for training staff on the spill kit annually.

Staff members involved are to complete an Incident and Hazard Report Form and to inform the OSH Representative and Clinical Nurse Manager.

6. Evaluation

Monitoring of compliance with this document is to be carried out by Occupational Health and Safety Representative for Theatre.

OSH forms completed and monitored at the Theatre staff meetings.

CIMS reviewed at the Theatre staff meetings.

7. Standards

[National Safety and Quality Health Care Standards](#) (First Edition)

- 1.14 Implementing an incident management and investigation system that includes reporting, investigating, and analysing incidents (including near misses) which all result in corrective actions.

National Safety and Quality Healthcare Standards (Second edition 2017)

- 1.11f Incorporates risks identified in the analysis of incidents into the risk management system

EQuIP National Standards

- 15.12.1 Safety management systems include documented policies and procedures for; work, health and safety and the management of dangerous goods and hazardous substances.

8. References

Occupational Safety and Health Administration American - [Anaesthetic Gases: Guidelines for Workplace Exposures](#)

WSH Council - [Workplace Safety and Health Guidelines - Healthcare](#)

Western Australian (WA) Occupation Safety and Health Regulations 1996

[Controlling Waste Anaesthetic Gases in Healthcare Settings](#). Health and Safety Authority (2014).

9. Related Forms

WACHS [Safety Risk Report Form](#)

WACHS [Chemical Audit Checklist](#)

[Worksafe WA Chemical Risk Assessment Form](#)

10. Related WACHS Policy Documents

[Managing Risks of Hazardous Chemicals and Dangerous Goods Procedure](#)

[Job Hazard Analysis Procedure](#)

[Personal Protective Equipment \(PPE\) Procedure](#)

11. Policy Framework

[Public Health Policy Framework](#)

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