



HS305 Mercury Spills Procedure

Policy Hierarchy link	Work Health and Safety Act 2011 Work Health and Safety Regulation 2011 Protection of the Environment Operations Act 1997 Work Health and Safety Policy		
Responsible Officer	Director, UNSW Safety and Sustainability		
Contact Officer	Manager, UNSW Health & Safety		
Superseded Documents	HS305 Mercury Spills Procedure v2.2		
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Associated Documents	HS332 Hazardous Chemicals Procedure HS321 Laboratory Hazardous Waste Procedure		
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1. Purpose

To inform any person who could come into contact with mercury of the appropriate action to take to protect themselves from any health risks.

2. Scope

This procedure applies to all UNSW facilities and operations where equipment containing mercury is used or stored.

3. Definitions

See Health Hazard of Mercury in Appendix 1.

4. Procedure

- a. Treat everything used during the clean-up procedure as 'hazardous waste'. Secure the scene (use barrier tape if necessary) and restrict admission to only those persons cleaning up the spill.
- b. Personal Protective Equipment: Put on rubber gloves, goggles or safety glasses and an air purifying respirator. The respirator may be a half-face or full-face respirator, depending on the risk, fitted with a cartridge suitable for mercury vapour. See such an example of a cartridge on the 3M respiratory protections website: <http://www.respiratormaskprotection.com/Respirator-Cartridge-Filter-Reference-Chart.php>
- c. If possible, lower the temperature. The cooler the temperature, the less mercury vapours that will be released into the air. [For example, a temperature increase of 10°C will double mercury's vapour pressure.] Close interior doors leading to other inside areas and open exterior doors and windows.
- d. Determine if the spill must be reported. Contact UNSW Health and Safety.
- e. Contain the spill: Surround or block off the mercury to keep it from spreading onto sloped or porous surfaces. Divert all mercury away from floor drains, cracks, or crevices that may impact groundwater, surface water, and soils.

- f. Ventilate the room to the outdoors. Use fans to force air circulation for a minimum of one hour after clean up. In an office building, increase the air exchange rate for two days. The danger of mercury exposure is greatest in small, confined, poorly ventilated areas.

- o. Never pour liquid mercury or mercury compounds down the drain. Since mercury is heavier than water, it will accumulate in the S-trap of your drain and may continue to emit harmful vapors. It is also an environmental pollutant.

- p. Remove and dispose of contaminated articles that have directly contacted mercury. Double or triple wrap these remnants in plastic rubbish bags and contact HS UNIT for proper disposal. Special precautions should be taken if mercury was spilled in a high traffic area or a confined area.

- q. Sprinkle fine powder sulfur or zinc on the spill site to bind any remaining mercury. This may be supplied in mercury spill kits as mercury vapour absorbent or purchased separately from chemical suppliers. Apply over hard-to-reach areas such as cracks and crevices to minimise the release of mercury vapours. In instances where furniture has been exposed to mercury, wash fabric thoroughly and allow all items to air out completely. Mercury may lodge

- y. Produce an inventory of all remaining mercury-containing devices and replace them with mercury free alternatives.

5. Review & History

Version	Authorised by	Approval Date	Effective Date	Sections modified
1.0	Director Human Resources	1 March 2003	1 March 2003	