

OHS Safety Advice

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Advice#: 8
Issue: *Mercury Hazard*
Reference:
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Mercury may potentially be found in many laboratory instruments and equipment including thermometers, sphygmomanometers, batteries, thermostats etc. Mercury is highly toxic and may be fatal if inhaled in sufficient quantities and harmful if absorbed through the skin. Exposure to mercury may lead to nervous system disorders, with metallic mercury vapours being particularly harmful because more mercury reaches the brain. Release of mercury into the environment has short and long term effects in both aquatic and terrestrial ecosystems as mercury and its compounds are able to persist for long periods in the environment and will bioaccumulate in organisms.

The OHS&IS unit recommends that this hazard be dealt with in accordance with good risk management practice and, using the hierarchy of control, be eliminated where possible. This can be achieved by replacing mercury containing equipment and products with mercury-free alternatives. Mercury containing equipment should be properly disposed of through an approved hazardous waste contractor.

Any mercury spills should be cleaned up according to the following procedure:

1. Lower the temperature if possible to reduce the release of mercury vapours into the air
2. If the spill has occurred in heated equipment (e.g. an oven), evacuate the area, turn the oven off and let it cool to room temperature
3. Close internal doors and ventilate the room to outdoors for at least 1 hour before commencing clean up. Use a fan to move air to the outdoors if possible
4. NEVER sweep or use a domestic vacuum cleaner to clean up mercury as this will spread vapours and increase exposure
5. Follow the 'mercury spills' procedure found in section 5.8.5 of the [UWS Laboratory Safety Guidelines](#). If you are using a commercial spill kit, please ensure that you read and follow the instructions and MSDS carefully
6. Use a bright light (e.g. a torch) to assist in locating small mercury droplets
7. Fine powder sulphur may be sprinkled over the area to bind any remaining mercury, especially hard to reach places such as cracks and crevices (follow advice in MSDS if using sulphur e.g. do not breath dust)
8. Place all contaminated items into an unbreakable plastic container and then into a zip-top plastic bag for secondary containment. Dispose of the waste in an appropriate manner using an approved hazardous waste contractor
9. Continue to ventilate the area to outdoors for at least 24 hours
10. After clean up, consider monitoring the spill area for residual mercury (especially for larger spills and those involving heated equipment). Contact the OHS&IS unit for advice
11. Report the incident to your supervisor and complete a [UWS Accident/Injury/Incident/Hazard Notification Form](#).

Please contact the [OHS&IS](#) unit if you would like more information or assistance.