



3.19

Chemical Safety Management

Information Sheet : Air & Health Monitoring

Purpose

The purpose of this information sheet is to guide workers and supervisors in the requirements for monitoring where it is required to ensure no worker at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the exposure standard.

Q1 When do I need to conduct air monitoring?

Air monitoring should be conducted:

- If there is reasonable grounds to question that the level of exposure will exceed the exposure standards;
- If the level or concentration of contaminants is to be determined;
- To check the effectiveness of control measures, such as ventilation/extraction; or
- To determine if maintenance or further controls are necessary.

Q2 What are exposure standards?

These are published concentrations for hazardous chemicals determined by Safe Work Australia which the workplace must ensure are not exceeded (Safe Work Australia's publication [Exposure Standards for Atmospheric Contaminants in the Occupational Environment](#)).

Q3 What is health monitoring and when is it required to be conducted?

Health monitoring is testing the person's health status because they are either potentially or actually exposed to certain substances.

Health monitoring must be undertaken if the worker is carrying out ongoing work which may expose the worker to hazardous chemicals and there is **significant risk to the worker's health** from exposure to the hazardous chemicals listed in Schedule 14 table 14.1, column 2 and Schedule 10 table 10.1-10.3 ([WHS Regulations 2012 \(SA\)](#)).

Health monitoring must also be undertaken if a risk assessment identifies that any worker could be exposed to any hazardous chemical with **significant risk to the worker's health**, and

- There are valid ways of detecting the effects on worker's health; or
- There is a valid way of determining biological effects; and
- If the exposure standard has been exceeded.

If health monitoring is required the worker must be informed before being engaged to undertake the work and before commencing the activity.

HSW Handbook	3.19 Chemical Safety Management (Information Sheet)	Effective Date:	2 February 2015	Version 2.0
Authorised by	Associate Director HR Policy, Safety and Compliance	Review Date:	2 February 2015	Page 1 of 3
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Information Sheet : Air & Health Monitoring (Continued)

Q4 Which chemicals potentially require health monitoring because they may cause risk to health?

- Acrylonitrile
- Inorganic arsenic
- Benzene
- Cadmium
- Inorganic chromium
- Creosote
- Crystalline silica
- Isocyanates
- Inorganic mercury
- 4,4' Methylene bis (2-chloroaniline) (MOCA)
- Organophosphate pesticides
- Pentachlorophenol (PCP)
- Polycyclic Aromatic Hydrocarbons (PAH)
- Thallium
- Vinyl chloride
- Lead
- GHS Toxicity category 1A and 1B
- GHS Carcinogens Category 1A, 1B and Category 2
- Other hazardous chemicals e.g. Antimony, Beryllium, Carbon disulphide, Cobalt, Cyclophosphamide, Ethyl benzene, Nickel, Styrene, Toluene and Xylene.

Q5 What do I do if I am working with any of the substances listed in Q4 and Appendix J or any other Category 1A and 1B toxicity (highly toxic) Category 1A, 1B and 2 carcinogens (highly carcinogenic substance)?

Conduct a risk assessment to determine if there is a significant risk to your health –

The level of risk to workers from exposure to hazardous chemicals depends on the hazards as well as the frequency, duration and amount of exposure (the dose). To determine the level of risk, it is necessary to draw together the information gathered about the hazardous chemical used and the way it is used in the workplace. This will involve considering:

- a. The nature and severity of the hazard for each hazardous chemical. This information should be available from the label and the safety data sheet (SDS) in most cases.
- b. The degree of exposure of workers, taking account of:
 - Actual processes and practices in the workplace where the chemicals are used.
 - The quantities of chemicals being handled.
 - Work practices and procedures and the way individual workers carry out their daily tasks.
 - Whether existing control measures adequately control exposure.

The outcome from this assessment is either a **significant risk** to health (**high or very high**) or **not a significant risk** to health (**low or medium**). If there is a significant risk this means that workers are likely to be exposed at a level that could adversely affect their health and health monitoring is required.

1. If there is not a significant risk to health then you will **not** be required to conduct health surveillance.
2. If there is a significant risk to health the follow the HSW Handbook Chapter [Hazard Management](#) for appropriate approvals and contact the [HSW team](#) to assist in implementing a health monitoring system in accordance with the requirements of [WHS Regulations 2012 \(SA\)](#).

HSW Handbook	3.19 Chemical Safety Management (Information Sheet)	Effective Date:	2 February 2015	Version 2.0
Authorised by	Associate Director HR Policy, Safety and Compliance	Review Date:	2 February 2018	Page 2 of 3
Warning	This process is uncontrolled when printed. The current version of this document is available on the HSW Website.			

Information Sheet : Air & Health Monitoring (Continued)

Q6 Who is required to pay for air and/or health monitoring?

It is the responsibility of the School to coordinate and pay for air or health monitoring (refer to section 370, 371, 373 and 374 WHS Regulations 2012 (SA) for specific requirements), however where the monitoring relates to a specific research project the School can require the research project to bear the cost.

Contact the [HSW Team](#) for specifics on who can conduct air or health monitoring.

Q7 What does the School need to do with the health monitoring report?

1. Supply a copy to the worker as soon as practicable.
2. Contact the HSW team if illness or injury is indicated or corrective actions are required. The HSW team will need to report to SafeWork SA if test results indicate contraction of an injury or illness from activities involving hazardous chemicals.
3. Implement any remedial action recommended by the health monitoring report to prevent further and future illness/injury to workers.
4. File the report (see Q8).
5. Maintain confidentiality.

Q8 Does the University need to keep monitoring records?

Yes the University is required to keep a confidential record, the School is responsible for obtaining and storing these records, the most appropriate place to store these records is in the record management office.

Further Information

If you require further information, please contact a member of the [HSW Team](#)

HSW Handbook	3.19 Chemical Safety Management (Information Sheet)	Effective Date:	2 February 2015	Version 2.0
Authorised by	Associate Director HR Policy, Safety and Compliance	Review Date:	2 February 2018	Page 3 of 3
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