

Hazardous chemicals are substances, mixtures and articles that can pose a significant risk to health and safety if not managed correctly. They may have health hazards, physical hazards or both.

Examples of chemicals that can cause adverse health effects include:

- toxic chemicals
- chemicals that cause skin damage
- carcinogens.

Examples of chemicals that can immediately injure people or damage property include:

- flammable liquids
- compressed gasses
- explosives.

Exemptions

Infectious substances, radioactive sources and chemicals that are only hazardous to the environment are not considered hazardous chemicals under the [model WHS Regulations](#).

The following hazard classes are also exempt under the Regulations:

- acute toxicity category 5
- skin irritation category 3
- eye irritation category 2B
- aspiration hazard category 2
- flammable gas category 2
- acute hazard to the aquatic environment category 1, 2 or 3
- chronic hazard to the aquatic environment category 1, 2, 3 or 4
- hazardous to the ozone layer.

Work health and safety duties

If you are a business, you have specific duties under the [model WHS Regulations](#) to manage the risks to health and safety associated with using, handling, generating and storing hazardous chemicals at a workplace. These include:

- Ensuring correct [labelling](#) of containers and pipework, using warning placards and displaying safety signs.
- Maintaining a [register and manifest](#) (where required) of hazardous chemicals and notifying the regulator if you store manifest quantities of hazardous chemicals.
- Identifying any risk of physical or chemical reaction of hazardous chemicals and ensuring their stability.
- Ensuring [workplace exposure standards](#) for hazardous chemicals are not exceeded.
- Providing [health monitoring](#) to workers (if relevant).
- Providing information, training, instruction and supervision to workers.
- Providing a spill containment system for hazardous chemicals if necessary.
- Obtaining the current [SDS](#) from the manufacturer, importer or supplier of the chemical.
- Controlling ignition sources and accumulation of flammable and combustible substances.

- Providing fire protection equipment, firefighting equipment and emergency and safety equipment.
- Providing a copy of your emergency plan to the primary local emergency services organisation if the quantity of a class of hazardous chemical at your workplace exceeds its manifest quantity.
- Ensuring the stability and support of containers for bulk hazardous chemicals, including pipework and attachments.
- Ensuring hazardous chemical storage and handling systems are decommissioned correctly.
- Notifying the regulator as soon as practicable of abandoned tanks in certain circumstances.

Managing the risks associated with hazardous chemicals

Businesses must also manage risks associated with using, handling, generating or storing hazardous chemicals at a workplace, including:

- Identify reasonably foreseeable hazards that could give rise to the risk.
- Eliminate the risk so far as is reasonably practicable.
- If it is not reasonably practicable to eliminate the risk, minimise it so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of risk control.
- Maintain the implemented control measure so it remains effective.
- Review and if necessary revise all risk control measures at least every five years maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

When managing the risks businesses must consider:

- The hazardous properties of the chemical.
- Any potentially hazardous reaction (chemical or physical) between the hazardous chemical and another substance or mixture, including a substance that may be generated by the reaction.
- The nature of the work to be carried out with the hazardous chemical.
- Any structure, plant or system of work that is needed in the use, handling, generation or storage of the hazardous chemical or could interact with the hazardous chemical at the workplace.

Failure to manage the risks associated with hazardous chemicals is a breach of model WHS laws.

Duties of suppliers

A supplier is anyone who supplies a hazardous chemical that may be used at a workplace. This includes intermediaries in the supply chain such as distributors, on-sellers and wholesalers.

Suppliers of hazardous chemicals must:

- Make sure, so far as is reasonably practicable, that chemicals they supply are without risks to health and safety.

- Provide [SDS](#) with hazardous chemicals. In addition they must not supply hazardous chemicals to workplaces if they know, or ought reasonably to know that the chemicals are not correctly [labelled](#).

To legally supply a hazardous chemical the worker must be over 16-years-old.

Duties of manufacturers or importers

Manufacturers or importers include anyone who manufactures or imports chemicals that are classified as hazardous under the [model WHS Regulations](#).

Under the Regulations, a business that packages or re-labels a hazardous chemical with its own product name is a manufacturer and has the same duties as other manufacturers.

Manufacturers or importers of hazardous chemicals must:

- Make sure, so far as is reasonably practicable, that chemicals they manufacture or import are without risks to health and safety.
- Correctly classify the chemicals that they import and/or manufacture, and prepare correct labels and SDS for those chemicals.

The [Hazardous Chemical Information System](#) is a web-based information system that helps you to find GHS classification information on chemicals.

Requirements for transporting hazardous chemicals

The [model WHS Regulations](#) do not apply to transporting hazardous chemicals. Instead there are laws in each state or territory that set out the requirements for transporting dangerous goods.

If you have questions about transporting hazardous chemicals or dangerous goods you should contact your local transport regulator:

- [Competent authorities for the transport of dangerous goods by road and rail](#)(link is external)
- [Civil Aviation Safety Authority](#)(link is external)
- [Australian Maritime Safety Authority](#)(link is external)

Restricted hazardous chemicals

Hazardous chemicals restricted under the [model WHS Regulations](#) are included in the table below.

Restricted hazardous chemical	Restricted use
Antimony and its compounds	For abrasive blasting at a concentration of greater than 0.1% as a
Arsenic and its compounds	For abrasive blasting at a concentration of greater than 0.1% as a
	For spray painting
Benzene (benzol), if the substance contains more than 1% by volume	For spray painting
Beryllium and its compounds	For abrasive blasting at a concentration of greater than 0.1% as a

Cadmium and its compounds	For abrasive blasting at a concentration of greater than 0.1% as dust
Carbon disulphide (carbon bisulphide)	For spray painting
Chromate	For wet abrasive blasting
Chromium and its compounds	For abrasive blasting at a concentration of greater than 0.5% (except for wet abrasive blasting) as chromium
Cobalt and its compounds	For abrasive blasting at a concentration of greater than 0.1% as dust
Free silica (crystalline silicon dioxide)	For abrasive blasting at a concentration of greater than 0.1% as dust
	For spray painting
Lead and compounds	For abrasive blasting at a concentration of greater than 0.1% as dust or for spray painting the operator to levels in excess of those set in the regulations covering lead
Lead carbonate	For spray painting
Methanol (methyl alcohol), if the substance contains more than 1% by volume	For spray painting
Nickel and its compounds	For abrasive blasting at a concentration of greater than 0.1% as dust
Nitrates	For wet abrasive blasting
Nitrites	For wet abrasive blasting
Radioactive substance of any kind where the level of radiation exceeds 1Bq/g	For abrasive blasting, as far as reasonably practicable
Tetrachloroethane	For spray painting
Tetrachloromethane (carbon tetrachloride)	For spray painting
Tin and its compounds	For abrasive blasting at a concentration of greater than 0.1% as dust
Tributyl tin	For spray painting
Polychlorinated biphenyls (PCBs)*	All except for if its use, handling or storage is:

- in relation to existing electrical equipment or construction materials
- for disposal purposes
- for genuine research and analysis.

*As per regulation 382 of the model WHS Regulations.

[Information on prohibited and restricted carcinogens.](#)

Further advice

SWA is not a regulator and cannot advise you about hazardous chemical compliance. If you need help, please contact your state or territory work health and safety authority.

Contact options



- [SafeWork NSW\(link is external\)](#)
[View more NSW contacts](#)



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[Workplace Health and Safety Queensland\(link is external\)](#)

[View more QLD contacts](#)



- **[WorkSafe Victoria\(link is external\)](#)**

[View more Vic contacts](#)



- **[WorkSafe ACT\(link is external\)](#)**

[View more ACT contacts](#)



- **[SafeWork SA\(link is external\)](#)**

[View more SA contacts](#)



- **[NT WorkSafe\(link is external\)](#)**

[View more NT contacts](#)



- **[WorkSafe WA\(link is external\)](#)**

[View more WA contacts](#)



- **[WorkSafe Tasmania\(link is external\)](#)**

[View more Tas contacts](#)



- **[Comcare\(link is external\)](#)**

[View more commonwealth and national contacts](#)

Related information

- Hazardous Chemical Information System (HCIS)
- National Transport Commission
- Labelling chemicals
- Classifying chemicals
- Safety data sheets