



Transport, handle and store chemicals

AHCCHM304A

By the end of this topic, you should be able to:

- Transport and handle chemicals and biological agents
- Store chemicals in the workplace
- Record storage details

Regulated use

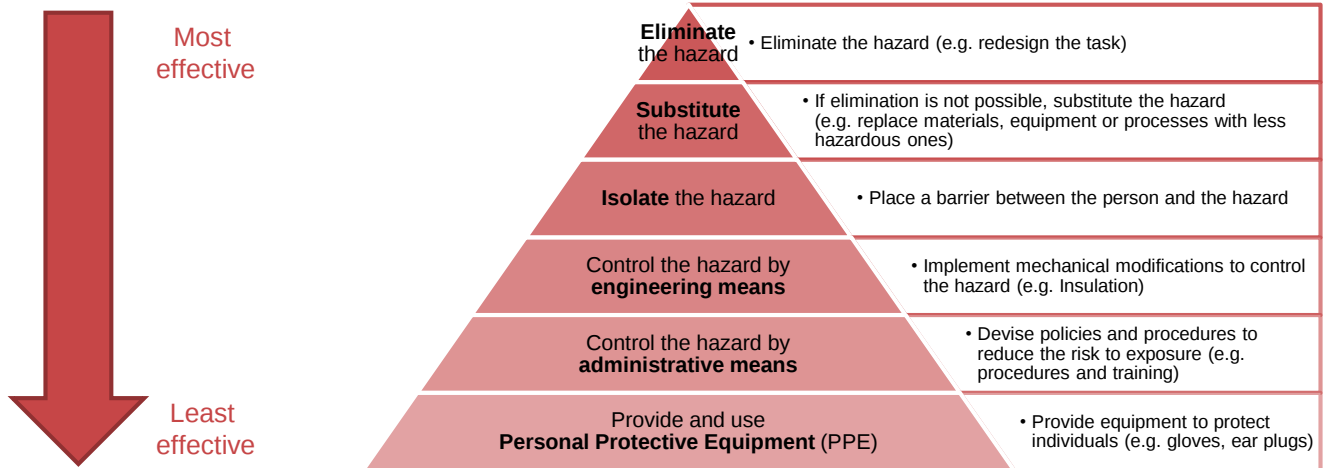
- The use of horticultural chemicals (e.g. herbicides) in Queensland is regulated.
 - If you distribute (spray, spread or disperse) herbicides using ground equipment (any machine or apparatus other than an aircraft), on land that you do not own or occupy (e.g. a commercial or work situation), you may require an *Agricultural Chemicals Distribution & Control (ACDC)* licence

The Department of Agriculture and Fisheries is the government department which issues licences

- When preparing to transport, handle and store chemicals, you should undertake the following:
 - Assess the risks involved in the transport, handling and storage of chemical and biological agents
 - Risks to the person (e.g. manual handling injuries, poisoning)
 - Identify environmental hazards (e.g. damage to flora/fauna, waste)

Workplace risk control

- The hierarchy of control gives priority to the order in which hazard and risk controls should be implemented.



Preparing to transport, handle and store chemicals

- When preparing to transport, handle and store chemicals, you should undertake the following:
 - Be familiar with product documentation, such as:
 - Product label: Identifies active constituent details and safety directions
 - Safety Data Sheets (SDS): Identifies hazard/risks and safety requirements (e.g. PPE, handling/storage precautions, accidental release measures, emergency requirements)
 - Be aware of signage/labels, such as:



Acute toxicity



Corrosive



Flammable



Danger to
human health



Warning

Will display a number which reflects the Poisons Schedule

Preparing to transport, handle and store chemicals

- When preparing to transport, handle and store chemicals, you should undertake the following:
 - Be familiar with the Poisons Standard which outlines the requirements for storage, disposal and record keeping for poisons (and medicines)
 - The relevant schedules are **in bold** below

Schedule 1	<i>Not currently in use</i>	Schedule 6	Poison
Schedule 2	Pharmacy medicine	Schedule 7	Dangerous Poison
Schedule 3	Pharmacist only medicine	Schedule 8	Controlled drug
Schedule 4	Prescription only medicine or Prescription animal remedy	Schedule 9	Prohibited substance
Schedule 5	Caution	Schedule 10	Substances of such danger to health as to warrant prohibition of sale, supply and use

Preparing to transport, handle and store chemicals

- When preparing to transport, handle and store chemicals, you should undertake the following:
 - Be familiar with laws applicable to your workplace, such as:
 - Acts, such as:
 - *Work Health and Safety Act 2011* (Qld) which outlines employers' and employees' safety responsibilities
 - Regulations, such as:
 - *Environmental Protection Regulation 2008* (Qld) which outlines environmentally protective storage practices and waste handling requirements
 - *Transport Operations (Road Use Management - Dangerous Goods) Regulation 2008* (Qld) which outlines duties of those involved in transporting dangerous goods
 - *Work Health and Safety Regulation 2011* (Qld) which addresses the handling/labelling of hazardous substances
 - Codes, such as:
 - Australian Dangerous Goods Code which addresses safety standards, segregation and transfer of goods, protective and safety equipment, travel routes and handling incidents

The handling of most dangerous goods (DG) does not become a legal obligation until the load exceeds 1t, but it may be as small as 250kg or 250L

Duties of packers and loaders

- Packers and loaders must not pack dangerous goods or load them into a vehicle if the packaging:
 - Is unsuitable, damaged, defective or not properly marked
 - Doesn't comply with the Australian Dangerous Goods code
- Packers and loaders must only display the correct placard for the dangerous goods being transported, as outlined in the Australian Dangerous Goods Code

- Vehicle owners must ensure the vehicle:
 - Is currently registered
 - Holds a dangerous goods vehicle licence
 - Displays a dangerous goods vehicle label
 - Meets inspection requirements

- Drivers of vehicles carrying dangerous goods must ensure that they:
 - Hold a dangerous goods drivers licence
 - Carry their dangerous goods transport document at all times (issued to them by the consignor)
 - In the event of a dangerous goods incident:
 - Notify emergency services
 - Emergency service numbers should be carried in the vehicle
 - Activate their transport emergency response plan to warn/advise others
 - Perform their duties regarding vehicle safety standards, parking/standing, packaging and placarding
 - Load, stow, restrain and segregate dangerous goods correctly
 - Be sure to protect the load from the weather

- Drivers of vehicles carrying dangerous goods must ensure that they:
 - Carry either of the following emergency information guides:
 - [Dangerous Goods - Initial Emergency Response Guide \(SAA/SNZ HB 76:2010\)](#) or
 - An emergency procedure guide for the dangerous goods transported on the vehicle (search the [SAI Global online store](#) for 'AS 1678') and the [Emergency procedure guide - Transport - Vehicle fire \(AS 1678.0.0.001-2004\)](#)
 - Carry the following safety equipment
 - Fire extinguishers (minimum requirements are listed in Table 12.1 of the Australian Dangerous Goods code)
 - PPE
 - Three (3) double-sided reflector signals

If a vehicle is used regularly to transport chemicals, it should contain a first aid kit and spill kit

- Consider the following general tips when loading and unloading chemicals:
 - Chemicals should never be transported in the same cabin space as people, pets and food.
 - Always check the chemical containers for corrosion and leaks
 - Check containers have complete labels
 - Distribute the load evenly and secure it to prevent movement
 - Do not leave vehicles carrying chemicals unattended
 - When unloading, check that the load is complete
 - Immediately clean up any spillage that may have occurred in transit
 - Follow SDS requirements, which should be kept on hand

- When a dangerous goods incident results in a 'dangerous' situation, the prime contractor must advise the *Department of Transport and Main Roads* (TMR).
- You must report any incident as 'dangerous' if it can cause, or is likely to cause, an imminent risk of:
 - Death or injury to a person
 - Harm to the environment
 - Damage to property

Reporting transport incidents

- You must notify TMR within 24 hours of the incident, providing details of:
 - The nature of the incident
 - Where and when the incident happened
 - What dangerous goods were being transported

Ensure that your message is clear, and that you are mindful of people's different backgrounds and abilities

- Within 21 days of the incident, the prime contractor must use the Dangerous goods incident report form to provide TMR with a more detailed written report including details of:
 - The nature of the incident
 - Where and when the incident happened
 - What dangerous goods were being transported
 - What the driver of the vehicle thinks caused the incident
 - What the prime contractor thinks caused the incident
 - Any measures taken to control any fire, explosion leak, spill or escape of dangerous goods
 - Any measures taken after the incident in relation to the dangerous goods
 - Any measures taken to prevent the incident from reoccurring

Storing chemicals

- Before storing chemicals, check the label for advice about storage and:
 - Assess the quantity of the substance to be stored
 - Assess how long you need to store the substance for
 - Identify the toxicity and stability of the substance
 - Check the state of the containers
 - Only use original containers - never use food containers
 - Check the state of the labels
 - Replace labels if they have come off

If hazardous chemicals are not stored correctly, they can lead to contamination, fire, spills, accidental inhalation or ingestion

- Once you are ready to store chemicals, you should:
 - Ensure safe design, location and installation of storage and handling systems (e.g. racking systems, tanks)
 - Stock should be kept off the floor
 - Stock should be grouped by chemical, type or DG classification
 - Separate incompatible substances to prevent reactive chemicals interacting
 - The segregation tool for dangerous goods can help you determine if combinations of hazardous chemicals are compatible or not.
 - Control potential ignition sources around flammable substances
 - Have emergency plans in place to deal with an incident involving the hazardous chemicals
 - Have the appropriate PPE and store it correctly (e.g. respirators sealed)

- A storage area should have:
 - A reliable water reservoir of clean water for washing and decontamination
 - An available emergency shower
 - The necessary equipment on hand in case of a fire, spill or accidental poisoning
 - The stock rotated so that unused material is not accumulated
 - Space available to store empty containers, prior to disposal

- Storage areas should be:
 - Located a minimum of 10m from any dwelling and 15m from the property boundary
 - Free of any flood threat or water damage
 - Clear of vegetation for 3m around the facility
 - Constructed of fire-resistant materials
 - Have a sealed floor that is bunded to contain any spillage
 - Well-ventilated and cool
 - Pesticides should be stored at temperatures of 5 - 35°C
 - Kept locked and secure to prevent contact with people or animals
 - Placarded to make known its contents

- Placards serve to:
 - Alert people to the presence of hazardous chemicals
 - Identify the hazards of goods present
- The types of placards under the Work Health and Safety Regulation 2011 (Qld) include:
 - Outer warning placard for the main entrance to the workplace
 - Placards must also be located at the entry to each room/area if goods are stored indoors
 - Information placards for hazardous chemicals in bulk (i.e. tanks/stockpiles)
 - Placards must be located on the external surface of the tank or adjacent to the tank
 - Information placards for hazardous chemicals in packages
- Refer to [Placarding for storage of hazardous chemicals](#)

- There are services available that can be used to dispose of chemical waste and containers
 - For example [drumMUSTER](#)
- There are services available that can be used to dispose of unwanted chemicals
 - For example [ChemClear](#)

- A workplace must notify Workplace Health and Safety Queensland (WHSQ) if there are hazardous chemicals:
 - In excess of manifest quantities prescribed in Schedule 11 of the *Work Health and Safety Regulation 2011* (Qld)
 - In excess of 10% of the prescribed quantity of Schedule 15 of the *Work Health and Safety Regulation 2011* (Qld)

- With regards to notifying WHSQ of the use, storage or handling of chemicals at a workplace:
 - A notification must be submitted immediately, or at least 14 days before the first use (whichever is earlier)
 - A workplace must also submit a notification if it no longer uses, stores or handles hazardous chemicals in manifest quantities
 - The notification must include a copy of the manifest of hazardous chemicals (i.e. an emergency information pack kept in a red HAZMAT box at the entrance of a workplace)
 - Manifests must comply with Schedule 12 of the *Work Health and Safety Regulation 2011* (Qld) – which includes an inventory of chemical types (including SDSs) and quantities
 - A copy of the emergency plan must also be sent to Queensland Fire and Rescue Service

- Under the *Work Health and Safety Regulations 2011* (Qld), workplaces have an obligation to notify emergency service organisations as the earliest opportunity in the event of an emergency
- At all times, keep emergency phone numbers handy for the following services:
 - Fire and rescue service
 - Doctor and ambulance
 - Poisons Information Centre (13 11 26)

- Under the *Work Health and Safety Act 2011* (Qld), a workplace is legally required to notify Workplace Health and Safety Queensland (WHSQ) of incidents that involve a dangerous incident, or result in:
 - Death
 - Serious injury
 - Serious illness
- In the event of a notifiable incident the workplace must ensure, so far as is reasonably practicable, that the incident site is not disturbed until an inspector arrives at the site