

Workplace safety - dangerous goods

Dangerous goods are objects or substances that are potentially harmful to people or the environment, such as explosives or chemicals. Dangerous goods can blow up, burn, corrode or poison people. They should be handled, stored and transported with great care.

Dangerous goods are classified in various ways, including United Nations identification numbers, Hazchem codes and Packing Group Numbers. Some dangerous goods, such as certain chemicals, are also classified as hazardous substances. Employers using these products in the workplace must abide by the regulations for both dangerous goods and hazardous substances.

Dangerous goods

Dangerous goods include:

- Compressed oxygen or other gases
- Explosives
- Flammable liquids including alcohol and flammable solids, such as nitrocellulose
- Infectious substances
- Oxidising substances, such as ammonium dichromate or pool chlorine
- Radioactive materials.

Classifications for dangerous goods

Dangerous goods are classified according to their properties, for example 'compressed toxic gas', 'flammable solid', 'toxic liquid'. Some dangerous goods attract subsidiary risk classifications, such as chlorine gas that is classed as toxic first and corrosive second.

Dangerous goods have their own United Nations identification number. Packing Group numbers classify dangerous goods according to risk. 'Packing Group I' classification indicates a high risk substance and 'Packing Group III', a lower risk substance. Hazchem codes give emergency services personnel information on the properties of the substance.

Dangerous goods in households

Australian homes commonly store small quantities of dangerous goods including petrol, kerosene, pesticides and pool chemicals such as chlorine. Safe handling suggestions include:

- Dangerous goods should be kept in their original containers and never decanted into other bottles.
- All labelling, including warning labels and manufacturers' instructions, should remain intact on the packaging.
- Different types of dangerous goods should be stored separately to prevent a chemical reaction. Liquids and powders should be separated.
- All ignition sources should be kept well away from the storage area.
- If in doubt, contact the manufacturer for information. They are required to provide safety information on their products.
- Dangerous goods should be kept in a secure location out of the reach of children.

Storage and handling regulations for business premises

Regulations on storing and handling dangerous goods are designed to prevent accidents. Business premises such as chemical plants, service stations, laboratories and hospitals must comply with the regulations.

The regulations cover a range of safety issues, including:

- Storage design, construction and location.
- Storage specifications for dangerous goods.
- Separating dangerous goods that may react when stored together.
- Fire prevention requirements.
- Protection equipment installation.
- The need to update WorkSafe Victoria on the type and quantity of all dangerous goods stored.
- The need to keep a full record, or manifest, of dangerous goods to inform emergency services in case of an accident.
- Some premises need licensing if they store more than a certain amount of dangerous goods.

Proper signposting is required

Some businesses, such as factories, warehouses, hospitals and farms, are required to post appropriate warning notices about the dangerous goods they store. These warning notices must be posted at various key locations throughout the business premises, including:

- At the vehicle entrance
- At all storage access points
- Hazchem signs at entrances, if the premises exceed the prescribed storage limit of some dangerous goods.

Hazchem signs

The Hazchem sign offers information to emergency services personnel about the dangerous goods, including:

- The type of fire extinguishing agent required, such as water or foam
- Details of violent reactions
- Suggested personal protective equipment
- Information on whether to dilute the effluent
- Whether evacuation is necessary.

Accident prevention

In the event of an accident, emergency services personnel need to know about the type and amounts of dangerous goods stored on your premises. A Register or detailed list should be available to emergency services personnel.

Some businesses need to prepare plans for emergencies in consultation with the relevant fire protection authority. An emergency management plan may include:

- Evacuation procedure for the workers
- Standard procedures for contacting emergency services
- Emergency contact lists, including after hours telephone numbers
- Emergency equipment details
- Material Safety Data Sheets (MSDS) location
- Site-containment measures.

High-consequence dangerous goods

High-consequence dangerous goods (HCDG) are those dangerous goods and other substances, in particular ammonium nitrate, that are of security concern. This is because they have the potential for misuse that may result in mass casualties and/or mass destruction.

There are specific licensing requirements for high-consequence dangerous goods. Further details are available from WorkSafe Victoria's website.

Professional advice

Organisations such as WorkSafe Victoria can give valuable information on all safety issues pertaining to the storage, transport and handling of dangerous goods.

Where to get help

- Your workplace occupational health and safety coordinator
- WorkSafe Victoria Tel. (03) 9641 1444 or 1800 136 089 (toll free)
- WorkSafe Victoria Emergency Response Line Tel. 13 23 60 – to report serious workplace emergencies, seven days, 24 hours
- Information Victoria Tel. 1300 366 356
- Standards Australia Tel. 1800 035 822 (toll free).

Things to remember

- Dangerous goods can blow up, burn, corrode or poison people.
- Laws relating to dangerous goods are designed to prevent accidents.
- Organisations such as WorkSafe Victoria offer information and advice on the storage, transport and handling of dangerous goods.

This page has been produced in consultation with, and approved by:

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