



AGRICULTURAL INDUSTRY FACT SHEET

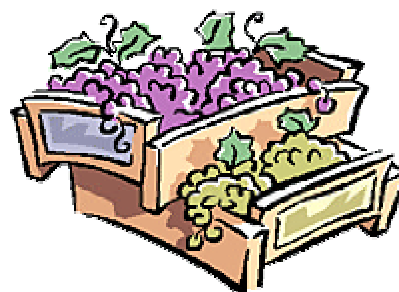
General requirements for Storage Facilities for Hazardous Substances

LOCATION

The following principles are provided for guidance in determining the store location where this is not specifically covered by local government zoning or building by-laws.

The purpose is to protect people, the environment and property.

- (a) Avoid proximity to watercourses, dams and storm water channels.
- (b) Ensure the area selected is above the highest recorded flood level.



Consideration must be given to the distances hazardous substances stores are located from the boundary of the premises and from any other building on the site. This information varies depending on the class and quantities of substances stored and can be found in the relevant Australian Standards (see the list on page 3 of this document).

TYPE

The type of installation is dependent on the type and quantity of hazardous substances to be stored, and may be one of the following:

- Type A An indoor storage cabinet, which is securely locked and located within a building. The building may be used for some other purpose.
- Type B An enclosed area separated by a wall, located within or attached to a building. The building may be used for some other purpose.
- Type C An isolated building not within or attached or abutting to any other building.
- Type D An outside storage installation enclosed by a man-proof fence, having two strands of barbed wire on top. Where a gate is required this shall be lockable for security. As a general principle, hazardous substances should be stored under cover. Outside storage, although sometimes unavoidable, should be only short term and confined to materials that are known to be stable in these conditions.

SEGREGATION

Segregation is the isolation of incompatible hazardous substances from each other. Incompatible hazardous substances must be segregated from each other by a distance of at least 5 metres. Provision should be made so that any spillage of one product can not flow and come into contact with another incompatible product.

Reference needs to be made to the Material Safety Data Sheets for each hazardous substance to determine its compatibility with other hazardous substances.

CONSTRUCTION

MATERIALS: Each storage facility should have wall and roof sheeting and main structural members constructed from materials that are non-combustible and impervious to the hazardous substances stored.

FLOORING: Goods should be stored on or above a concrete floor or other impervious surface. Containment should be provided for at least 25 percent of any liquid stored therein in drums and / or 100 percent of any liquid stored in bulk tanks. Ideally the floor should be graded to an area (or preferably a sump) to facilitate collection and subsequent disposal of any spills and washing water.

RACKING AND SHELVING: Adequate provision should be made in the form of racks / shelves made of non-combustible and impervious materials.

VENTILATION: Adequate ventilation is required to ensure the safe dispersal of vapours especially during decanting and product transfers. Any buildings used for the storage of hazardous substances must be provided with upper and lower level vents in at least two walls (preferably opposite walls to aid cross ventilation).

SECURITY: All storage installations must be secured from access by unauthorised persons by the use of locks.

SIGNAGE: Sign(s) delineating the storage installation must be displayed.

NOTE: Tanks for flammable liquids and gases shall not be located within buildings.

CLEANING: Provision shall be made for washing down the store floor and bunded area with water.

WASHING FACILITIES

Adequate provision of a supply of water must be made for emergencies, and washing of personal protective equipment.

HEAT AND IGNITION SOURCES

All storages should be kept away from sources of heat such as heating appliances and direct exposure to the sun.

The storage of flammable gases, flammable liquids, flammable solids and oxidising agents should be kept away from sources of ignition such as light switches, refrigerators, welders and exposed flames. Particular care to avoid ignition sources and static electricity should be taken when flammable gases and liquids are transferred.

STORAGE OF PERSONAL PROTECTIVE EQUIPMENT

An adequate area, separate from the hazardous substance storage area is required for all personal protective equipment.

FIRE PROTECTION AND EMERGENCY PLANNING

It is required that at least one of the following fire protection measures be provided (as a minimum) in a readily accessible location to areas used for the storage and handling of hazardous substances:

- One dry powder fire extinguisher having a rating of at least 40B(E);
- A garden hose connected to a reliable water supply; and
- Bucket(s) of clean dry sand with shovels for spreading.

It is also required that the types of emergencies that may arise be identified (eg. fire, spill, poisoning, explosion etc) and actions for dealing with these events be implemented: eg.

Provision of suitable fire extinguishing agents;

- Provision any neutralising agents;
- Train staff how to raise an alarm;
- Train staff on who to contact in case of emergencies.

GENERAL SAFETY PRECAUTIONS

- The employer and any person on any site in which hazardous substances are stored shall take all practical precautions to prevent the occurrence of accidents through fire, spillage or leakage of hazardous substances.
- The employer is responsible for ensuring that safe procedures are established and observed for the receipt, storage and handling of hazardous substances at the workplace.
- Hazardous substances shall only be kept in their original containers or in containers that have been specifically designed for the particular hazardous substance.
- Packages shall not be pressurised as a means of transferring their contents - unless they are specifically designed for such operation.
- The contents of leaking containers shall be repacked immediately
- Any spillage of hazardous substances shall be cleaned up and recycled or disposed of immediately.
- All persons engaged in the handling of hazardous substances must be given instruction and training regarding their safe handling.
- A person who is impaired by the use of alcohol and / or drugs shall not enter or be permitted to enter or remain in an area used for the storage of hazardous substances.
- Packages may be stacked provided that the packages are not likely to fall and that such stacking is not likely to damage other packages in the stack.
- The area within 3m of any storage area shall be kept clear of any combustible materials or vegetation.
- A person shall not smoke or take any other source of ignition (eg. oxy torch, unprotected electrical equipment) into any area used for the storage of hazardous substances.
- A procedure for regular inspection and maintenance of all storage and handling facilities should be established and implemented.

NOTE: Suppliers of hazardous substances are required to make available safety information in the form of a material safety data sheet (MSDS) for each product. The MSDS together with the product label are useful sources of information for safe storage and handling. A register containing a list of all hazardous substances and their MSDS must be maintained.

RELEVANT AUSTRALIAN STANDARDS

- AS/NZS 1596-2002 Storage and handling of LP Gas
- AS 1940-1993 The storage and handling of flammable and combustible liquids
- AS 2507-1998 The storage and handling of agricultural and veterinary chemicals
- AS 3780-1994 The storage and handling of corrosive substances
- AS 4332-1995 The storage and handling of gases in cylinders
- AS/NZS 4452-1997 The storage and handling of toxic substances

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