

# Storing pesticides safely on farm

January 2016 Primefact 1377 Second edition  
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## Introduction

This Primefact is adapted from the *Spray Sense* series.



## Store features

It is very important for you to store hazardous chemicals correctly. These materials pose a great threat to the safety of you, the people working with them but also to the wider community and the environment.

In some cases your storage area may need to be licensed. This will depend on the type of substance you are storing and the quantity. Contact WorkCover for details.

It is important that the pesticides are stored in an appropriate designated store, that is isolated, secure and where any spills or emergencies can be dealt with. Access must be restricted to authorised people.

## Design features to consider for a store

- The storage facility must be designated only for the storage of pesticides.

### Small quantities

- For small quantities of pesticide a steel cabinet may be suitable.

### The building

- The store must be constructed of fire resistant material. These materials include brick, concrete, steel and galvanised iron. Other fire resistant materials may also be suitable.
- The floor should be constructed of material which is impervious and resistant to chemical erosion. This will help to prevent

contamination of soil and water and in cleaning up any spills.

- A lockable door to keep dangerous goods secure or child-proof latch if no dangerous goods are stored.
- Shelving should be made of impervious material. Absorbent materials like timber are not suitable. For small quantities of pesticide, place the containers on impervious trays.
- Ventilate well to ensure fumes do not build up.
- Good lighting to make labels easy to read, a minimum of 200–400 Lux is recommended.
- Sufficient storage shelving to be able to separate different groups of pesticides.
- Do not store liquids above powders and granules.
- Access to water for washing and cleaning, with access to an eye wash and an emergency shower.

## Environment

- It should be a cool, dry place, which is out of direct sunlight. Ideally with temperatures restricted between 5° and 30° C.
- Have clear access to avoid hazards whilst carrying chemicals.
- Water from the wash-down and filling areas should drain into a sump.

## Measuring

- Measuring cylinders for liquids and accurate scales for weighing powders should be maintained and easily accessible inside the shed, and designated only for the purpose of measuring pesticides.

## Spills

- A spills kit is available for clean-up.
- Provide a method for containing spills. See bunding later in this Primefact.

## Siting a store

Australian Standard-2507 states that storage of pesticides must be located:

- 15m from the property boundary,
- 10m from buildings occupied by people or livestock and
- 3m from unrelated work areas, offices and amenities
- 3m from flammable materials and fuel storage and,
- 5m from any watercourse, body of water, drain or sewer.
- Away from vegetation and rubbish so it is not prone to possible fires.
- With sufficient available access around the facility to fight fires if needed.
- With sufficient space between bund walls, storage areas and other structures, for maintenance and emergency access.
- In an area that is safe from flooding or inundation, and is also not in the immediate catchment of a dam or waterway.
- In an area that is not likely to flood.
- Away from any waterways, drains and not where the water table is close to the surface.
- Away from any private dwellings, pumps, tanks, water supplies, animal handling facilities, domestic animals and areas where the public would normally visit.
- As part of another building only if it is completely separated from any other part of that building.
- Away from incompatible types of chemicals, fuels and combustible materials.
- With all-weather access.

## Personal Protective Equipment (PPE)

Locate near but not inside the chemical store. This avoids contaminating of PPE.

Any dirty equipment should be kept separate while waiting to be cleaned or disposed of.

PPE needs to be appropriate to the chemical being used/stored.

Information about appropriate PPE can be found on the chemical label and Safety Data Sheet (SDS). Examples of PPE are overalls, rubber boots, elbow length rubber or PVC gloves, chemical goggles or face shield, PVC apron and suitable respirator.

Charcoal filters must be regularly replaced and must be stored in a suitable air-tight container when not being used.

## Personal hygiene

When working in a store you may be exposed to many hazardous substances. Good personal hygiene will reduce your risk of accidental exposure or poisoning. Good personal hygiene practices include:

- **Wearing appropriate PPE** when handling any pesticides. The PPE you should use will be outlined in the SDS.
- **Not eating, smoking or drinking** while and after handling pesticides or its containers, unless you have washed your hands thoroughly. Residue on your hands can easily be ingested which could cause poisoning. Never bring foods into and do not eat in the pesticide storage room even if your hands are clean.
- **Keeping the storage area neat and tidy** at all times. This includes cleaning up any spill as soon as possible, storing away clean measuring containers and keeping all benches clean.

## Records

The NSW Environmental Protection Authority (EPA) requires commercial pesticide users to keep a list of all the pesticides stored. Maintenance of a manifest when chemicals exceed certain quantities is a requirement of the Work Health & Safety (WHS) Regulation 2011. Remember to keep the list, or a copy, well away from the pesticide store in case of emergency eg fire.

More information can be found on the [NSW EPA website](#).

## Labels and Safety Data Sheets

- Inform you about storage requirements. It is a legal obligation that you read, or have them read to you, understood and comply with them.
- Labels should always be readable and facing the front of the shelf. If labels become damaged or faded they must be replaced. Every container must have an original/correct label on it.
- Labels are also available from the [Australian Pesticides and Veterinary Medicines Authority \(APVMA\) /pubCHRIS web site](#).

## Emergency

There is a need to have safety provisions. This includes emergency showers and eye wash facilities and fire extinguishers. A 2 kg dry powder fire extinguisher or a 9 litre foam fire extinguisher is suitable.

- Have spill kits available and ready for use.
- Have shovel/s, sand / vermiculite or other absorbent materials easily accessible to soak up spills.
- Check that all emergency doors can be opened at all times.
- Ensure that a first-aid kit is available and fully stocked at all times.
- Ensure any PPE you need, especially for a spill, is clean and in a sealed container so it cannot become contaminated.
- Keep a first aid kit in ready to use condition.
- Display telephone numbers of the Poisons Information Centre, suppliers' emergency response, ambulance, hospital and doctors in a prominent position.

## Bunding

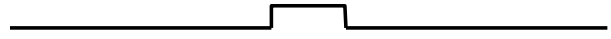
- Bunding can be provided by an impervious floor such as concrete.
- This bunding must be able to hold 25% of the total volume of pesticides stored. For example, if you store 80kg/L of pesticide your bunding must be able to hold 20kg/L of pesticide.
- The bunding must also be able to hold 100% of the largest container so in the above example if your largest container is 25 L your bunding must be able to hold 25 L.
- If a container or tank of pesticide has to be kept outside, bunding must be able to contain 110% of the liquid stored pesticide.
- For the storage of any flammable materials, NSW Fire Brigades recommends that the capacity be increased to 133% of the capacity of the largest tank, to allow for the capture of firewater.

Figure 1 – Bund types

### Ramp bund



### Square bund



### Hump bund



### Channel to contain or direct to blind tank



- If an automatic fire sprinkler system is installed in or over any banded tank or drum storage compound, the capacity should be increased either by a volume equal to the output from the sprinkler system for a period of at least 20 minutes, or to 133% of the capacity of the largest tank, whichever is less.
- The bund must be built from materials that will resist attack by any toxic substances that might be put inside it.
- If bund drain valves are installed they must be leak proof and able to continue functioning in a fire. The controls must be outside the banded area. They must be able to be opened manually, and the valve must be able to be locked in the closed position. The 'open' and 'closed' positions on the valve must be indicated and obvious.

For WorkCover advice on [storage and handling of dangerous goods](#) – just follow this link.

**NSW EPA** can be contacted on 131 555

**WorkCover** can be contacted on 131 050

## Legislation

The storage of pesticides is regulated by four pieces of legislation:

1. *Protection of the Environmental Operations Act 1997*
2. *Work Health and Safety Act 2011*
3. *Pesticides Act 1999*
4. *Dangerous Goods Regulation 2005*

This Primefact is a guide for the storage of Agricultural Pesticides classified as 'Minor Storage' according to the **Australian Standard AS 2507 – 1998**. Most farms will have quantities and types of chemical that will not exceed this classification. When quantities exceed 1000kg or

Litres combined, there are additional specifications which must be met and complied with, such as:

1. *The Dangerous Goods Act 1985*
2. *Dangerous Goods (Storage and Handling) Regulations 2012*.

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