### Quick tips

- Chemicals should never be stored in a hot place or in direct sunlight
- Storage buildings should not be located in areas which are subject to flooding or close to a reservoir, waterway, swamp or bore
- Store chemicals that may react with each other separately
- Spilt chemicals should never be allowed to seep into the ground or wash away into waterways or wetlands. This can be achieved by using sealed concrete flooring with bunding
- Keep a register of the type, amount and location of all stored chemicals
- Check the containers regularly for leaks or faded labels and fix or replace accordingly
- Use appropriate protective clothing and equipment when dealing with dangerous chemicals and have a material safety data sheet for each chemical to refer to in the event of an emergency



Government of Western Australia Department of Water

Looking after all our water needs

### Department of Water

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For a complete list of our regional offices, please go to our website <www.water.wa.gov.au> and select contact us.

### Feedback

We welcome your thoughts and suggestions on these publications. We aim to regularly update them and make them as useful as possible, which in turn will improve the level of protection we can provide for Western Australia's precious water resources. Please email us at <waterquality@water.wa.gov.au> or contact us via the above information.



Looking after all our water needs

# Liquid chemicals on agricultural land

#### Photo courtesy of the Department of Agriculture and Food



# Transport, blending, storage and disposal near sensitive waters

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Liquid chemicals can be toxic, corrosive and/or harmful at very low concentrations. If mismanaged, many liquid chemicals pose a significant risk to water quality, especially to sensitive water resources.

If leaked into water resources, liquid chemicals may go undetected for long periods of time causing water contamination and may be very costly to remedy. Care must be taken in the storage, blending, transport and disposal of liquid chemicals to prevent contamination from occurring.

## Liquid chemicals that pose a hazard to water quality include:

- acids and alkalis
- disinfectants
- fuel
- lubricants and coolants
- paint
- pesticides.

### Transport

Some chemicals are classed as dangerous goods and as such are governed by the *Dangerous Goods Safety Act 2004* and associated regulations, administered by the Department of Consumer and Employment Protection. To find out which chemicals are classed as dangerous, refer to appendix 2 of the Australian Dangerous Goods Code, produced by the National Transport Commission, available at <www.ntc.gov.au>.

If the chemicals are dangerous, shipping documentation must be clearly displayed in the cab of the vehicle transporting it. All chemicals being transported, dangerous or not, should be securely stored and well ventilated. It is also good practice to carry a spill kit consisting of absorbent material, such as rags or saw dust, and safety equipment, such as rubber gloves, to clean up in the event of a spill or leakage. Chemicals should be unloaded on a stable impervious surface. If a spill occurs, it should be immediately cleaned up and the residue placed in a labeled container for reuse or disposal.



### Storage

Chemical storage facilities should be constructed to prevent their escape into the environment under all circumstances. This means that the compound should be fully contained. Importantly, the building should only be used for chemical storage and nothing else.

Ensure there is a first aid kit, running water, material safety data sheets and a fire extinguisher close by.

Chemicals that could react with each other should be labelled with warnings and separated. Ideally these chemicals should be stored in separate compounds or at least on different sides of the building. The drainage system should ensure that reactive chemicals drain to separate collection pits.

All containers should be in good condition with labels intact. Regular inspections and replacement of rusty or damaged containers will prevent leakages.



All chemical blending and decanting should occur in an area which is fully contained. This ensures that if there is a spill, chemicals won't escape into the environment. An example of such an area is a sturdy shed with a concrete floor, perimeter bund and sealed collection pit. If any chemicals leak or spill they can drain to an area to be recovered or disposed of properly.

## Disposal

Always dispose of empty chemical containers according to the manufacturer's instructions. They should be triple rinsed and allowed to dry prior to disposal. Rinsate may be used to dilute chemical formulations or stored pending disposal. There are two programs, ChemClear and DrumMuster, which will collect and dispose of unwanted chemicals and clean, empty containers with the appropriate sticker without cost.