

# Safe handling of organochlorine pesticides on farms



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ON & BYRNE

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LORDANE

CHLORANE EMULSION  
CONCENTRATE

RECOMMENDED FOR  
ON OF ALL TYPES OF  
CROCODILES, SNAKES,  
PET BIRDS, AND  
OTHER NOCTURNAL

ONS FOR USE

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used with water  
20% Chlorane emul-  
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Ready to a fine  
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TYPE ALARM! LAMB PEST

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MANUFACTURED BY

BYRNE (S.A.) PTY LTD

1000 Road, Sydney

POISON - 5.9

KEEP OUT OF REACH OF CHILDREN  
DO NOT USE AS BAKEN

\$ 00.52

POISON

LANE'S  
DIELDRIN  
10% CONCENTRATE

For use on all types of  
insects, including  
bees, flies, mosquitoes,  
ants, etc.

Recommended for the control of  
insects on trees, shrubs, plants,  
and other vegetation. Mix with  
water in the ratio of 1 part of  
concentrate to 10 parts of water.  
Apply with a fine spray.

LANE'S PTY LIMITED

SYDNEY, AUSTRALIA

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# **Safe handling of organochlorine pesticides on farms**

Farmers or market gardeners storing unwanted organochlorine pesticides (OCPs) or other pesticides on their premises can benefit from guidance on the management of these obsolete pesticides.

This brochure is primarily about storage, transport and disposal of organochlorine pesticides but much of the advice will be applicable to other rural chemicals too – care needs to be taken with all pesticides.

**M**ost persistent OCPs are no longer registered for use and if unregistered must not be used or discarded to the environment. When handling unwanted organochlorine pesticides, take particular care, as they are toxic to both humans and the environment. Persistent OCPs do not break down easily – they remain toxic in containers or soil for decades or longer. If released into the environment, these OCPs will contaminate it and may also contaminate your or your neighbour's produce, resulting in its withdrawal from sale or export.

The main persistent OCPs and other persistent chemicals remaining on farms or market gardens may have one of a range of brand names, but are likely to contain at least one of the following chemicals:

- aldrin
- chlordane
- dieldrin
- DDT
- endrin
- heptachlor
- hexachlorobenzene (HCH or BHC)
- hexachlorophene
- isodrin
- lindane or gamma benzenehexachloride (still registered for limited use)
- mirex (still registered for limited use)
- pentachloronitrobenzene (quintozone) (still registered for limited use)
- pentachlorophenol
- toxaphene or chlorcam, or campheclor
- 2,4,5-T

A list of trade names of pesticides which contained OCPs is available through the contact numbers at the end of this booklet.

### **Note:**

In some jurisdictions OCPs are the subject of specific controls, codes of practice or guidelines, eg, in NSW OCPs are covered by a Chemical Control Order under the Environmentally Hazardous Chemicals Act 1985. The OCPs listed as still registered may not be registered for use in all states and territories of Australia. You should investigate the situation in your State/Territory through your State contact.

## **Health and safety when handling OCPs**

### **Note:**

Australian Standard 2507-98 The Storage and Handling of Agricultural and Veterinary Chemicals provides more comprehensive advice on the handling of pesticides in general. Other codes of practice which can also be referred to include the NSW Workcover Code of Practice for the safe use and storage of chemicals in agriculture. Standards Australia can provide the standards documents – phone 1300 654 646. Their website is [www.standards.com.au](http://www.standards.com.au)

## **Protective Clothing and Equipment**

- Always read the label on the container to ensure you know the correct personal protective equipment that should be worn when handling OCPs.

- Wear elbow-length PVC or other chemically resistant gloves when handling any chemical containers. However, even these gloves can let chemicals and solvents through eventually and they should be replaced after several uses. Gloves used for handling OCPs should be held in a labelled container for disposal as for OCPs. Gloves used with other chemicals can be disposed of in general refuse.
- In addition, wear:
  - long trousers and long-sleeved shirt and/or washable overalls;
  - eye protection (glasses or visor);
  - washable hat, and
  - closed shoes or gumboots, at all times.
- An approved respirator should be used when handling volatile pesticides.
- Remove protective clothing and gloves in a manner that prevents skin contact with surfaces that may be contaminated.
- Wash personal protective equipment separately after each use and store in clean and hygienic conditions. Used respirator cartridges may be collected into sealed containers/bags and disposed of in general refuse.
- Launder even lightly soiled clothing separately from other items and store any OCP contaminated clothing in labelled containers or bags for later proper disposal.

## **Further Avoiding Exposure**

- Avoid contact with the chemical and breathing any vapour or dust.
- **NEVER** use your mouth to siphon liquids or to blow out an obstructed spray nozzle.
- It is important to wash hands immediately (soap and cool to warm water) after handling any

containers, even though gloves have been worn, as the gloves may have become contaminated by dirty hands or leakage.

- After handling pesticides, always wash your hands with soap and cool to warm water before eating, drinking, handling children or pets, smoking or going to the toilet.
- Do not wipe contaminated surfaces of protective equipment on your clothes.
- Do not eat, drink or smoke in the storage area.
- Attend immediately to any cuts or abrasions incurred during the handling of chemicals.
- If the label is missing from a container, or if the container is severely deteriorated, contact your State contact person for identification and/or management advice, and treat it with the same precautions as you would an OCP.

### **Material Safety Data Sheets (MSDS):**

Ask for an MSDS from the supplier or manufacturer of the registered pesticide that you plan to use. These data sheets contain information on the proper handling and use of the pesticide, as well as toxicity and first-aid information.

## **First Aid**

- If pesticides are spilled on the skin follow the first aid directions on the label – or immediately wash with soap and cool to warm water.
- If pesticides come into contact with the eyes, wash with copious amounts of water.
- Seek medical advice immediately should pesticide poisoning be suspected.
- If pesticides are swallowed follow the first aid directions on the label and contact the Poisons Information Centre – telephone 131 126.

## Storage of pesticides



CPs which are not stored correctly can become a health or environmental hazard, as well as creating a serious disposal problem.

Safe storage of all farm chemicals is needed to protect them from the weather, restrict access to them, prevent contamination of the environment, food seeds, fertilisers, stockfeed or livestock and ensure separation from other chemicals. OCPs require particular attention because of the long term risk they pose to the environment and human health.

OCPs should be stored in accordance with the requirements of dangerous goods legislation and other relevant legislation, which, where applicable, includes Australian Standard 1940 (*The Storage and Handling of Flammable and Combustible Liquids*) and Australian Standard 2507 (*The Storage and Handling of Agricultural and Veterinary Chemicals*).

### Storage Requirements

Safe storage of farm chemicals, especially OCPs, incorporates the following:

- Keep containers of OCPs or other unwanted chemicals well separated from your other chemicals – if possible, in a separate shed, but at least in a separate area several metres away.
- For safe storage, it is important to have, as a minimum, a locked, cool, waterproof shed with a sound roof, with chemicals out of direct sunlight. The shed should be locked to ensure that children, and others who might use pesticides by mistake, cannot be exposed to them.
- The shed should also have an impervious floor surface, such as concrete, preferably bunded, to contain any spills and prevent stormwater inflows.



### Flammable materials:

While OCPs are not generally very flammable, many farm chemicals, including fertilisers and pesticides are **very** flammable and can produce toxic fumes during combustion, so precautions need to be taken to avoid any combustion. Your local fire or bush fire brigade will be able to offer advice about the precautions you should take in storing such materials. Never store pesticides with oxidising agents such as pool chlorine, chlorine dioxide, potassium permanganate, or ammonium, potassium or sodium nitrate fertilisers. A torch, if used, should be switched on outside of the area – the spark from switching on a torch can ignite a flammable atmosphere. Matches or flame lamps should never be used to read the labels.

- Do not store any pesticides close to water courses or open storm-water channels.
- Do not store pesticides where they might be subject to flooding, including surface stormwater flows.
- Keep pesticides away from household, swimming pool or other chemicals such as fertilisers, paints or cleaning agents.
- Store only in original containers, which should be resealed and have an intact label. **NEVER** store a pesticide in a food or drink container as labels may not be read and the contents could be accidentally consumed.
- Pesticide holders should keep an inventory of all chemicals present on the premises.
- Keep a spill kit (protective clothing and absorbent materials for cleaning up) in a separate location nearby.

## **Never mix chemical wastes.**

Mixing unwanted chemicals poses dangers to you and will make disposal difficult and much more expensive. People involved in mixing chemicals are at increased risk of exposure and, in an extreme case, mixing of incompatible chemicals can lead to violent reactions, such as fire, explosion, spatter of hot materials, or a release of chlorine or ammonia gas. Furthermore, the problem of disposing of the container from which the chemical has been removed remains.

## **Chemical Labels**

- Make sure that the containers are clearly labelled at all times.
  - Regularly check labels for deterioration.
  - Where possible, labels should be protected from deterioration by avoiding exposure to moisture and sunlight. Even if some deterioration has occurred, always keep the original label which was on the original container.
  - Where a label is deteriorating, clearly indicate the substance contained using a permanent marker on a readily visible part of the container.
- There are good reasons for ensuring that proper containers and appropriate labels are used:
  - Insurance companies may question liability if an accident or spillage occurs and an unlabelled or improper container is a contributing cause.
  - Disposal is made more difficult if chemicals are not identified and analysis would have to be undertaken at considerable additional cost.

- A back-up system, to provide for future label deterioration, is recommended. A suggested back-up system involves making a permanent unique identifying mark on each container; and copying the label information into a record book or card against that unique identifying mark. Ensure that the record book or card includes the purchase date, safety directions, first aid methods, warnings, etc.
- Pesticide holders must ensure that containers of chemicals, particularly OCPs, remain appropriately labelled, as they were when originally purchased. If a substance has to be poured into a second (clean) container then that container must be labelled with the product name and appropriate risk and safety phrases. These can be copied from the product container.
- Permanently marking a container, especially a rusty metal tin without a carrying handle, can be a challenge. Some ways of making identifying marks / labels are:
  - using paint on the container;
  - writing with a permanent felt pen on plastic containers;
  - making a soft metal tag (eg cut from a drink can) marking with a sharp metal object such as a nail, and wiring it on firmly;
  - writing on a plastic tag with a permanent non-smudging pen and wiring the tag onto the container; and,
  - storing the container in a clearly marked larger container.



## **Container Integrity**

- You should arrange for specialist assistance if you are unsure of the integrity of a container – for example, if you suspect that the bottom of the container may fall out or leak if the container is lifted. Be aware that moving corroded containers could result in contamination of you and your storage area.
- If the container is currently sound, but shows signs of deterioration, you should immediately pour the contents to a secure new properly labelled container, or place the current container into a properly labelled secure overdrum. Clean cut-down 20-litre plastic drums could make useful overdrums for smaller containers. Don't forget to label it!
- Be careful to pour properly or decant from the container avoiding splashing and spurting.

## **Spills**

Clean up any spills promptly. Spills of OCPs must be contained and managed appropriately until disposal is possible (see below). The spill site must be cleaned of the spillage. This can be done by covering the spill with sand, soil or 'kitty litter' before sweeping it up and then storing the material in a properly labelled container. If the spillage was onto soil, the soil will need to be stored in a container and managed until disposal with the same method used for OCPs. Make sure you have dry sand, soil or 'kitty litter' available for use in case of spills.



# Transport of pesticides

**O** CPs should be transported in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail, and any relevant legislation or conditions required by the relevant State or Territory. Details can be obtained from your State contact.

Safe transport of OCPs depends on, amongst other things, how much there is, where it is to be transported and what else is to be transported with it. In general, small quantities (eg 200 kg or litres or less) can be transported on a private vehicle providing that the container is properly secured and safe from spillage.

## Preparation for Transporting Pesticides

Any accident or shift in load may have serious consequences when transporting pesticides in significant quantities. Therefore:

- **Do not** transport OCPs or other pesticides with food, animal feed or consumer goods.
- **Do not** move open or leaking containers (see above).
- **Do not** transport pesticides in a non-ventilated vehicle.
- **Do not** transport pesticides in the passenger space of trucks or utes. The container may fall over and leak, and the interior may fill with vapour, especially when the vehicle is stationary and the air flow into the cabin stops.
- **Do not** transport chemicals in the boot of a private vehicle ('ute-it...don't boot-it').
- **Do not** transport waste pesticides with incompatible waste chemicals
- **Do not** expose containers to excessive moisture or heat.

- **Do** secure containers so they cannot fall over or leak.
- **Do** have a visible placard indicating that pesticides are on board.
- **Do** have an inventory of the pesticides being carried.
- **Do** ensure that the driver of a large load is carrying protective equipment.
- **Do** protect the pesticides against theft.
- **Do** call the Fire Brigade or Police in the event of a spill.
- **Do** carry clean-up materials in case of a spill.

## Collection and disposal of pesticides

**O** CPs or OCP contaminated products or small amounts of soil from spills must only be transported to an appropriately licensed disposal facility or to an authorised collection point. No on-farm disposal is to occur and OCPs are not to be dumped at Council or privately owned tips. Penalties apply for illegal disposal of hazardous chemicals such as OCPs.

In many areas free, or highly subsidised, collections are occasionally run. The arrangements for and dates when these collections take place are widely publicised. If you have any unwanted pesticide waste you may dispose of OCPs privately through an appropriately licensed disposal facility, or you should store your OCPs safely until a collection is undertaken in your area.



## Further information

Contact your State EPA (see below) if you have any further queries regarding storage, transport, collection or disposal of OCPs.

**ACT:** Environment ACT – ph 6207 2151

**NSW:** Environment Protection Authority Pollution Line – 131 555

**NT:** Environment Heritage Division,  
Department of Lands, Planning and  
Environment – ph (08) 8924 4140

**QLD:** Environmental Protection Agency  
Advisory Service – ph 1800 501 087

**SA:** Geoff Sclare  
Environment Protection Authority  
ph (08) 8204 2033

**TAS:** Department of Primary Industries, Water  
and Environment – ph (03) 6233 6518

**VIC:** Environment Protection Authority  
Information Centre – ph (03) 9628 5622  
fax (03) 9628 5391

**WA:** Department of Environmental Protection –  
ph (08) 9222 7000  
  
Agriculture Western Australia –  
ph (08) 9368 3688



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