



Government
of South Australia

SafeWork SA

SAFE MANAGEMENT OF FARM CHEMICALS



safeworksa

SOURCES OF INFORMATION

Agsafe Limited

Telephone: (02) 6230 4799

Email: info@agsafe.com.au

ChemClear®

Telephone: 1800 008 182 or (02) 6230 4799

Email: info@chemclear.com.au

www.chemclear.com.au

drumMUSTER

Telephone: 1800 008 707 or (02) 6230 6712

Email: drummuster@drummuster.com.au

www.drummuster.com.au

drumMUSTER's SA Regional Consultant can be contacted on (08) 8554 7268 or 0409 834 113

SafeWork SA

Telephone: 1300 365 255 or 8303 0400 (for interstate and mobile callers)

www.safework.sa.gov.au

Department of Primary Industries and Resources of South Australia (PIRSA)

Farm Chemicals Branch

Telephone: 8226 0549

www.pir.sa.gov.au

WorkCover

For workers' compensation and return to work information

Telephone: 13 18 55

www.workcover.com

Environment Protection Agency (EPA)

Telephone: 8204 2000

www.environment.sa.gov.au

SA Farmers Federation

Telephone: 8232 5555

www.saff.com.au

SA Metropolitan Fire Services

Telephone: 8204 3611

www.samfs.sa.gov.au

Department of Health

Telephone: 8226 7117

www.dh.sa.gov.au/pehs/drugs-poisons-licences.htm

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DISCLAIMER

This publication contains information regarding occupational health and safety. It includes some of your obligations under the Occupational Health and Safety legislation that SafeWork SA administers. To ensure you comply with your legal obligations you must refer to the appropriate Acts and Regulations.

This publication may refer to legislation that has been amended or repealed. When reading this publication you should always refer to the latest laws.

SAFE MANAGEMENT OF FARM CHEMICALS

This publication provides advice about the safe management of chemicals on farms. Chemicals are used on farms for a variety of purposes. The safe management of chemicals requires access to information and responsible action. Manufacturers, suppliers and users of farm chemicals all have an important role to play. It is not only farmers who have to do this - the same laws apply to chemical use in all workplaces and some of them apply in the community generally.

Chemical substances present different types of risks to people's health, safety and the environment. For this reason there are different laws controlling them. The purpose of these laws is to ensure that chemical users have access to information and that chemicals are used safely and efficiently so that risks to human health, the environment and damage to property are minimised. The Environment Protection Agency (EPA) produces 'Guidelines for Responsible Pesticide Use', which covers pesticide regulatory requirements.

Safe management of chemicals involves correct labelling and packaging, provision of material safety data sheets (MSDS), safe transport, storage, use and disposal of substances. Employees need to be instructed and trained so that they know how to protect themselves. Emergency Services also need access to information.



The key to safe management of chemicals on farms is to obtain and apply the information from the labels and MSDS provided by the chemical product manufacturer or supplier. The information provided on labels and MSDS must comply with the relevant laws. This information should then be applied to ensure that chemicals are used as safely and efficiently as possible, protecting people, the environment and property.

If you need more advice, contact one of the organisations listed on the inside front cover, who are working together to help to ensure that you have the information you need to manage chemicals safely.

There are specific laws relating to hazardous substances, poisons, dangerous substances, agricultural and veterinary chemicals. When manufacturers label a product they must determine what risks the chemical presents and produce one label that meets all the legal requirements.

Farm chemical management requires that quality information is passed from the original manufacturer or importer, via the supplier of the chemical, to the end user. Labels and MSDS that must meet legal standards are the primary way that information is provided.

LABELLING AND PACKAGING

Chemicals must be supplied in packages that are correctly labelled and suitable for the substance. Information provided on the label will depend on the type of substance and the risks associated with it.

Items to look for are:

- Signal words such as 'CAUTION', 'POISON' or 'DANGEROUS POISON', used for scheduled poisons - a signal word alerts users to the possibility of poisoning if the substance is swallowed, inhaled or absorbed through the skin.
- The Dangerous Goods (ADG) diamond if there is an immediate risk to health or safety e.g. flammable liquids.

- National Registration Authority (NRA) approval when the substance is a registered agricultural or veterinary chemical - NRA approved labels include details of permitted use and safe application rates, as well as some safety directions.
- Risk phrases describing the type of health effects e.g. 'irritating the skin', and safety phrases stating precautions for safe handling, storage, spills, disposal and fire e.g. 'keep away from combustible material'.

There is a standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), which is administered by the Department of Health.

The Australian Code for the Transport of Dangerous Goods by Road or Rail (ADG) is administered by SafeWork SA.

Agricultural and veterinary chemical legislation is administered by the Department of Primary Industries and Resources of South Australia (PIRSA).

Occupational health and safety legislation is administered by SafeWork SA.

ENSURE THAT CONTAINERS REMAIN LABELLED

Farmers must ensure that the original labels remain on containers of substances. If a substance is poured into a second container such as a spray tank then that container must be labelled with the product name and appropriate risk and safety phrases. These can generally be copied from the parent container. Labelling is not necessary if a substance is used immediately and its container is thoroughly cleaned.

There are good reasons for ensuring that proper containers and appropriate labels are used, including:

- Using food containers to store poisons can result in poisoning due to accidental swallowing.
- Insurance companies may question liability if something goes wrong and an unlabelled container has been the cause of an incident.

- Produce cannot be exported if maximum residue limits are exceeded - labels provide advice on permitted use and withholding periods for agricultural and veterinary chemicals.

MATERIAL SAFETY DATA SHEETS

Material safety data sheets (MSDS) must be produced by the manufacturer or importer of a hazardous substance. The MSDS must be provided on the first occasion that the substance is supplied and a copy must be supplied on request at any other time.

The MSDS is not just a piece of paper. It provides important and useful advice about what is in the product, its health effects, safe use and handling, storage, disposal, first aid and emergency information. Farmers must obtain the MSDS from their supplier and keep them in a register where they are available to people who could be exposed to the hazardous substance.

The register is a collection of the MSDS and other information which can be kept in a folder, filing cabinet or other practical system.

The register can be kept in the house, the workshop or the chemical store, so long as it remains accessible to emergency service personnel and any employees who may be exposed to hazardous substances.

STORAGE AND TRANSPORT

Safe storage of farm chemicals is needed to protect them from the elements, restrict access to them, prevent contamination of the environment, food or livestock and ensure separation from other incompatible chemicals. Arrangements must be in place to contain any spillage of the chemical.

There are some formal requirements for the storage of particular substances. See 'Storage of Chemicals' on the SafeWork SA website. After considering the potential risk to people's health or to the environment, a farmer might decide that a locked shed with a roof and concrete floor, which is bunded to contain any spills, is the best way to provide safe storage.

Remember, you should never store oxidising agents with fuels. That is - never store substances labelled with a yellow diamond together with a red diamond.

Safe transport of farm chemicals depends on what the substance is, how much there is, where it is to be transported and what else is to be transported with it. In general, small quantities (e.g. 250kg/litres or less) can be transported on a vehicle providing that the container is properly secured and safe from spillage.

Special rules apply to the transport of farm chemicals that are dangerous substances. Visit the link on the SafeWork SA website at

http://www.safework.sa.gov.au/uploaded_files/Storage.pdf and the Transport Safeguard at

http://www.safework.sa.gov.au/uploaded_files/ds7i.pdf

It is safer to carry farm chemicals in utes, trailers and trucks than in car boots or passenger compartments of vehicles. Remember: 'Ute it - don't boot it'.

The MSDS is the best source of information about safe storage and transport for the particular farm chemical.

If you are storing very large amounts of farm chemicals (e.g. more than 1,000 kg), you should draw up an emergency response plan with the Emergency Services and contact SafeWork SA for advice on placarding and licensing. See also *AS 2507, The Storing and Handling of Pesticides* and *AS 1940, Storing Flammables* for more advice.

If you intend to transport significant amounts of farm chemicals on a public roadway, advice should be sought from SafeWork SA.

SAFE USE OF FARM CHEMICALS

With the information provided on the label and MSDS about the health effects and how to control them, the farmer, in consultation with employees, must determine the safest practicable way of using the hazardous substance.

The potential risk to people's health and to the environment needs to be considered. This includes 'off-target consequences', that is, the potential to kill a

neighbour's crop, making yourself or your family sick, contaminating a local waterway or similar undesirable and unintended outcomes of using a farm chemical.

The first step in controlling the risk is to consider if a chemical substance is really needed. It may be possible to eliminate a hazardous substance altogether, or if that is not possible, to substitute it with a less hazardous one.

If substitution is not an option then engineering controls may be appropriate, for example, closed circuit chemical transfer systems.

Safe work practices or personal protective equipment should be used where other means of risk reduction are not reasonably practicable or additional protection is needed.

If there is a significant risk to the health of employees, then health surveillance may be needed to check if there are adverse health effects. This should not be needed if exposure is kept under effective control.



Record keeping is one part of good farming practice. Records of rainfall, breeding, crop rotation, chemical use, expiry dates and yields are commonplace. Likewise there is a need to keep records of farm chemical management including details of risk assessments of chemical use, control measures implemented and employee training.

The potential for 'off-target' damage needs to be assessed in environmentally sensitive areas.

If a pesticide is needed, select the least hazardous one for the job and use the most suitable application equipment for the product and the situation.

You can keep records in any form, however, some standard formats have been developed to assist employers. Contact SafeWork SA for advice on this.

DISPOSAL

Empty farm chemical containers and unwanted chemicals need to be disposed of properly. Prior to disposal of empty containers, wash the container out three times and use the rinse water to dilute further batches of the chemical to working strength.

To wash a container you do not need to fill it each time. If you only have six litres of water, it is more efficient to use three washes of two litres each, than it is to rinse once with the full six litres.

For further information on container rinsing and recycling, contact Agsafe on (02) 6230 4799 or visit www.agsafe.com.au

Unwanted farm chemicals can be disposed of free of charge at the EPA's hazardous household waste and farm chemicals depot. The depot is located on the corner of Magazine Rd and Henschke St, Dry Creek and is open the first Tuesday of every month between the hours of 9.00am and 12.00noon. Contact the EPA for disposal options on 8204 2000.

Chemicals can also be disposed of through the ChemClear® program. ChemClear® is an industry/farmer funded program for the ongoing collection and disposal of unwanted, registered chemicals. The program collects unwanted registered rural chemicals produced by CropLife Australia, Animal Health Alliance Limited and the Veterinary Manufacturers and Distributors Association (VMDA) members. The ChemClear® program compliments the drumMUSTER program.

For further information visit www.chemclear.com.au or telephone 1800 008 182 or (02) 6230 4799.

Chemical Containers can be disposed of at a licensed landfill or through the drumMUSTER program. This is the national program for the collection and recycling of empty, cleaned, non-returnable crop production and on-farm animal health chemical containers. An environmental initiative, it has been developed by the Australian Local Government Association (ALGA) together with the National Farmers' Federation (NFF), the National Association for Crop Production and Animal Health (CropLife Australia & Animal Health Alliance) and the Veterinary Manufacturers and Distributors Association (VMDA).

For further information visit www.drummuster.com.au or telephone 1800 008 707 or (02) 6230 6712.

A South Australian Regional Consultant for drumMUSTER can be contacted on telephone 8554 7268.

Information on the drumMUSTER program can also be obtained from your local council.

TRAINING

The key element in safe chemical handling is training in chemical management. A farmer's right to use chemicals on the farm carries critical responsibilities. All farmers must acquire the skills to be competent chemical managers through training.

Like all employers, farmers must provide instruction and training to employees who could be exposed to hazardous substances, to ensure that they are aware of the risks and take appropriate steps to minimise the risks.

PIRSA can advise on training courses designed to provide the knowledge and skills to use farm chemicals safely and effectively. There is also a course on the use of explosives in agriculture.

Telephone 8226 0587 or 8226 0549 for details.



DEALING WITH EMERGENCIES

If something goes wrong you need to be prepared. First aid treatment may mean the difference between a serious and a minor accident. The label and MSDS provide first aid information. Make sure you have first aid materials on hand to deal with an emergency.

If Emergency Services is called in for an emergency such as a chemical spill or a fire in a farm shed, they will need access to information to protect themselves and assist in resolving the situation as quickly as possible. Ready access to the register of MSDS is essential.

The register of MSDS can be kept in the house, workshop or chemical store, as long as there is ready access to it.

EMPLOYEES' DUTIES

Employees must follow any reasonable instruction given by their employer about health and safety and they must use any health and safety equipment provided to protect them. Employees should also raise any problems that they think might affect health and safety.

For further information about workers' rights and responsibilities, contact SafeWork SA.



SOME QUESTIONS ANSWERED

Do we need to have a chemical storage shed on the farm?

The *OHSW Regulations* require the user to determine the safest storage that is practicable under the circumstances.

It would not be safe to store large quantities of pesticide, scattered in different locations around the farm. In this case a suitable shed may be the best option. If a farmer is a licensed pest controller (contract sprayer) the requirement for a shed is mandatory under the *Pesticide Regulations of the Controlled Substance Act*.

Why is it necessary to obtain a MSDS when everything I need is on a label?

A lot of information is on the label of agricultural and veterinary chemicals. The labels for these classes of substance are legal documents. It may be illegal to use the substance in any other manner, or for any other purpose, than that stated on the label. However, the label does not tell you all about the ingredients. For example, the solvent carrier may be xylene or toluene, which themselves are hazardous. The MSDS sets out extra information on the safety of the product. MSDS kept in a folder are less likely to be corroded, eaten by silverfish or stained by chemicals, as is often the case with labels. Obtaining a MSDS is a requirement under the *OHSW Regulations 1995*, in order to carry out a risk assessment.

There are many hazardous substances (such as chromium fumes from welding rods, corrosives in tank cleaners and isocyanates in two pack paints) that do not have comprehensive labels in the same way that agricultural and veterinary chemicals do. It is therefore necessary to obtain a MSDS for these products to become fully informed about the nature of the hazards. The purpose is to gain as much knowledge that is available about the effects of the hazardous substances that are used, and the methods of using them safely.

Where do I get the MSDS for the old substances that I have in the shed?

As long as you know what the substance is and who produced it, you can contact the manufacturer or importer and request a MSDS. They must supply it. If the substance is no longer produced and the MSDS is not available, then consider appropriate disposal of the substance or obtain other relevant information in order to carry out a risk assessment.

What if my supplier will not give me a MSDS?

Change your supplier and give SafeWork SA the details so that they can follow up with the supplier and explain their responsibilities to them.

Why do farmers have to do this?

It isn't only farmers who must do this. All employers are required to store and use hazardous substances in a safe manner. There are many substances in use today that can be harmful to health, especially if they are used over a long period of time. The health effects may occur gradually so you may not notice until your health is already affected - permanently. Finding out about potential health effects and then taking steps to minimise exposure to hazardous substances makes good sense.

SAFEWORK SA

HELP AND EARLY INTERVENTION CENTRE

100 Waymouth Street, Adelaide

HELP CENTRE

Telephone: **1300 365 255** or **(08) 8303 0400** for mobile and interstate callers

Email: help@safework.sa.gov.au

To report all serious workplace accidents and incidents telephone **1800 777 209** (24 hour service)

LIBRARY

Telephone: (08) 8204 8877

Facsimile: (08) 8204 8883

Email: library@safework.sa.gov.au

BOOKSHOP

Telephone: (08) 8204 8881 or (08) 8204 8882

Facsimile: (08) 8204 8883

Email: bookshop@safework.sa.gov.au

Opening hours from 8.30am - 5.30pm,

Monday to Friday (the Help Centre closes at 4.15pm on Wednesdays)

HEAD OFFICE

Level 3, 1 Richmond Road, Keswick

GPO Box 465, Adelaide, SA 5001

DX 715, Adelaide

COUNTRY OFFICES

BERRI

30 Kay Avenue, Berri

PO Box 346, Berri SA 5343

Telephone: **(08) 8595 2199**

MOUNT GAMBIER

Level 1, 11 Helen Street, Mount Gambier

PO Box 871, Mount Gambier SA 5290

Telephone: **(08) 8735 1199**

PORT LINCOLN

73-75 Tasman Terrace, Port Lincoln

PO Box 2862, Port Lincoln SA 5606

Telephone: **(08) 8688 3057**

PORT PIRIE

Level 1, 104 Florence Street, Port Pirie

PO Box 462, Port Pirie SA 5540

Telephone: **(08) 8638 4777**

WHYALLA

15-17 Horwood Street, Whyalla

PO Box 696, Whyalla SA 5600

Telephone: **(08) 8648 8733**

To speak to SafeWork SA in a language other than English, contact the Interpreting and Translating Centre on (08) 8226 1990 and ask them to contact SafeWork SA. This interpreting service is available at no cost to you.

www.safework.sa.gov.au