



# Health and Safety in Farming

## HSNO brief for farmers – Spill kits



### What is a spill kit?

A spill kit is a collection of equipment used to contain and clean up spilt hazardous substances.

You can purchase commercial spill kits from safety stores or you can make a kit to suit your own requirements.

### What sort of spill kit do I need?

You need to look at the areas where products are stored, handled, mixed and used to determine what might happen if concentrate or mixed chemicals are spilt.

In storage areas where there is good secondary containment (e.g. drip trays or bunded sealed floors), you need a spill kit to soak up minor spills. If spills are likely to escape to other areas (e.g. through drains) spill containment equipment may also be needed.

If you plan for spills in a mixing area, you need to consider how much liquid may escape if a spray tank ruptures, and where the contents would go.

*For further information, see Secondary containment on farms (Brief 10) and Spill procedures (Brief 11).*

### What should a spill kit contain?

A spill kit should contain personal protective equipment (PPE), spill handling equipment, containment equipment, absorbent materials and a disposal container.

It should also contain information on what to do when a spill occurs.

### Personal protective equipment

When you handle or mix hazardous chemicals, you should always wear appropriate PPE. Typically this should include overalls, rubber boots, gloves and eye protection. Other safety equipment commonly found in spill kits includes a face shield, disposable carbon filter dust mask, and a chemical resistant apron.

It is important you make PPE a part of your spill kit, as there may be times where someone entering the area for other purposes discovers a spill and needs short term protection to contain the spill or clean it up.

The protective clothing contained in a spill kit may be less durable and will therefore offer less protection than standard PPE. Follow the instructions in the kit. Many commercial spill kits are only designed for one-off use. In this case, remember, UDR – Use it, Dispose of it, Replace it.

## Spill handling equipment

You should have absorbent materials to “soak up” spills. Used absorbents will need to be collected and disposed of. You should include heavy duty plastic bags as well as a shovel and broom in your spill kit.

Don't rely on farm tools to collect absorbents after a spill, as they are inevitably being used somewhere else when they are needed!

## Absorbent material

Absorbent materials need to be effective at “mopping up” liquids. They should be an inert material that won't react with the chemicals being recovered. The two most commonly available absorbents are Zeolite and Vermiculite. They are highly effective and (importantly) inexpensive.

Zeolite is marketed in the form of “kitty litter”, BBQ absorbent or mineral sponge and can be found at many retailers. Vermiculite is used as a growing media for hydroponics and is available from most horticultural suppliers.

Both materials should absorb around half their volume of liquid (i.e. 20 litres of absorbent will absorb around 10 litres of liquid). Therefore, you need to consider the size of the largest chemical containers in your store when deciding how much absorbent material might be required.

**Sawdust should not be used as an absorbent material for chemical spills as it can react vigorously with some products.**

## Spill containment equipment

**Spill containment** trays are open containers used to stand ruptured drums on so that the leaking chemicals can be contained and recovered.

Empty agrichemical containers in which the top has been removed make cheap and effective containment trays. If you use old containers in this way, you need to make sure they have been thoroughly cleaned and the previous contents are compatible with any product likely to be spilled.

Containment trays for collecting spills can also be purchased from most safety stores.

**Spill containment socks** are fabric “tubes” filled with an absorbent material used to “dam” areas where liquids are spilled to prevent the spill from spreading. They're easy enough to make from Hessian or canvas sacks filled with a suitable absorbent material (e.g. Vermiculite, Zeolite) or dry sand.

## Further information

Information on spill kits can be found in the New Zealand Standard NZS8409:2004; *Management of Agrichemicals*.

Information on how to deal with a spill of a specific product can be found on safety data sheets. You can get safety data sheets for products from your agrichemical supplier.

Information is also available from the ERMA New Zealand Hazardous Substance Compliance Line 0800 376 234.

