

SETTING UP THE CORRECT SPILL RESPONSE EQUIPMENT

Spill Kits

A mobile Spill Kit is really a “Hazmat ambulance” – a very important unit to have on hand in the event of an accidental spill.

Spill Kits are packed with a range of sorbents and particulates – plus PPE and clean-up items.

The kits are colour coded to designate the type of spill for which the contents inside are designed to be used.

To meet the clean-up needs applicable to the majority of site spill risks, Spill Kits are available in three types:

General Purpose (Blue)

Suitable to clean up most oil and water-based liquids, including oils and fuels, plus solvents, detergents, mild acids and chemicals – even food products such as milk – not forgetting water too.

Not suitable for clean-up of oil on water, or oil in a wet environment.



Oil Only (Red)

Absorb only oil-based (hydrocarbon) liquids. They will repel water-based liquids so they are ideal for oil spills on water or oil spills in a wet environment.



Chemical (Yellow)

To clean up hazardous and aggressive liquids, although they are suitable for both oil and water-based liquids too. The key difference is that sorbents are coloured yellow to clearly differentiate them from others so they can be handled and disposed of with caution because they contain potentially hazardous chemicals.



WHAT SIZE SPILL KIT – AND HOW MANY?

To establish the number and size of Spill Kits required, it is necessary to calculate the size of a potential spill. This will depend on the volumes stored on site. For example, 10 x 200 litre drums could indicate the need to provide for the clean-up of two drums at any one time – 400 litres.

Mobile Spill Kits are typically labelled 100 litre and 200 litre. This indicates the absorption capacity of the sorbents and particulates inside.

DIFFERENT TYPES OF SORBENTS

When are they used?

These can be purchased separately from, or in addition to, Spill Kits.

Pads

- Ideal to clean up general leaks and minor spills
- Available for General Purpose, Oil Only and Chemical



Rolls

- Continuous roll of perforated pads
- Ideal to clean up larger areas
- Available for General Purpose and Oil Only



Socks

- Tube-shaped to encircle spills and drains
- Available for General Purpose, Oil Only and Chemical



Booms

- Larger diameter than Socks – specifically designed to contain and absorb oil on water
- Can be linked together to span ponds, streams etc



Pillows

- Ideal when a higher absorption capacity is required
- Useful to plug drain grates
- Available for General Purpose, Oil Only and Chemical



NZ Safety Blackwoods

HAZARDOUS LIQUIDS

STORAGE ■ CONTAINMENT & TRANSFER ■ SPILL RESPONSE

Many of the common place substances found in over 150,000* workplaces throughout New Zealand are hazardous to people and the environment if stored or used incorrectly. If you store or use liquids, by law you must have systems in place to prevent or contain accidental leaks and spills. Requirements for secondary containment are not just limited to industrial sites but apply equally to commercial, distribution and retail sites.

INFORMATION FOR EMPLOYERS

In the area of Hazardous Substances and Spill Response, HSWA, HSNO and RMA legislation make employers responsible for ensuring that their activities and those of their employees and subcontractors do not result in injuries to others or pollution of the environment.

Resource Management Act (RMA)

The RMA prohibits unauthorised discharges of contaminants into air, land and water - i.e. it is illegal to pollute the air, soil or any waterway, either directly or via a stormwater drainage system.

Hazardous Substances & New Organisms Act (HSNO)

HSNO controls the storage, use and manufacture of hazardous substances - those that are explosive, flammable, oxidising, toxic, corrosive, or ecotoxic (harmful to the environment).

THE MAIN CAUSES OF LEAKS AND SPILLS

- Poor storage and handling techniques
- Inadequate or no secondary containment
- Containers punctured by forklifts and other equipment
- Corroded containers
- Unlabelled or incorrectly-labelled containers
- Lids left off containers
- Storage of liquids above dry solids

Helpful Links



www.hsno.govt.nz
www.epa.govt.nz
www.mfe.govt.nz

Consequences to business of spills

- Fines of up to \$600,000 and up to two years imprisonment
- Remedial and clean up costs
- Company directors and managers can be held personally criminally liable if lack of due diligence is proven
- Tenders for major civil works contracts will often include, as an evaluation attribute, details of any previous environmental offending

SPILL MANAGEMENT OVERVIEW

To prevent pollution and minimise your environmental liability you need:

- Basic containment and clean-up equipment
- Training to make sure staff know how to use spill equipment
- A Spill Response Guide available

Remember to:

- Eliminate** Where possible remove the need for chemicals on site
- Isolate** Contain any potential spills
- Minimise** Prevent and clean up spills before they spread and enter stormwater



ARE YOU PREPARED FOR A SPILL?

We provide Spill Response and HSNO Approved Handler courses.

For course information contact:
worksafe@nzsafety.co.nz
 0800 967 572



CONTROL OF LEAKS AND SPILLS

Secondary Containment Systems

Common Hazardous Substances like commercial cleaning products, paints, adhesives, acids and solvents can cause serious harm to people and the environment when not stored and used safely.

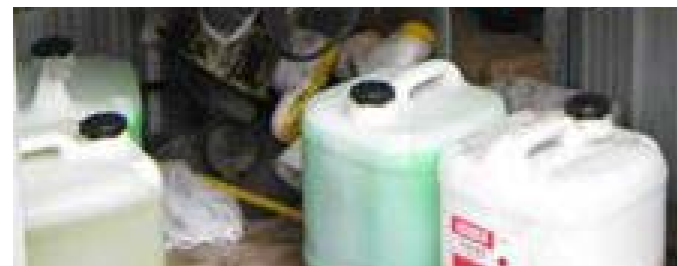
Secondary Containment Systems can contain a spill and enable its recovery, preventing a potential emergency from escalating and putting staff, the public or the environment at risk.

Code of Practice

An important source for guidance on this is the Code of Practice referred to as Secondary Containment Systems, HSNOCOP, approved under The HSNO ACT.



Scan the QR code to access the Code of Practice



An Effective Control System

The HSNO legislation governs the rules and requirements around secondary containment. The associated Code of Practice states that for Hazardous Substances which are liquids, or are likely to liquefy in a fire, the key objectives of an effective control system are to:

1. Capture and contain liquids in the event they are released from their primary container.
2. Recover the liquids and dispose of them safely.
3. Eliminate energy sources capable of igniting the liquids (in the case of Class 3 to 5 substances).
4. Prevent the risk of substances being contaminated by incompatible substances and materials.



WHEN IS A SECONDARY CONTAINMENT SYSTEM REQUIRED?

Secondary containment is required based on specified quantities depending on the hazard classification of the substance and the size of the container(s):

Minimum secondary containment capacity hazardous substances with **flammable classification**:

Container Size Categories	QUANTITY - TOTAL POOLING POTENTIAL (TPP) AT STORAGE LOCATION	
	Less than 5,000 Litres	Greater than or equal to 5,000 litres
≤ 60 litres	At least 50% TPP	2,500L or 25% TPP whichever is the greater
> 60 and up to 450 litres	At least 100% TPP	5,000L or 50% TPP whichever is the greater
> 450 litres	At least 110% capacity of largest container	

Minimum secondary containment capacity for **classes 6, 8, 9 substances** that are not also flammable:

Container Size Categories	QUANTITY - TOTAL POOLING POTENTIAL (TPP) AT STORAGE LOCATION	
	Less than 20,000 Litres	Greater than or equal to 20,000 litres
≤ 60 litres	At least 25% TPP	5,000L or 5% TPP whichever is the greater
> 60 and up to 450 litres	At least 25% TPP or 110% of the largest container whichever is greater	5,000L or 5% TPP whichever is the greater
> 450 litres	At least 110% capacity of largest container	

Secondary Containment of Oils

Oils are commonly stored at many sites. Typically, but not always, Oils fall within Class 9.1A (Ecotoxic).

The table below also includes other HSNO classifications which may apply to Oils.

If stored quantities equal or exceed the the trigger quantity - then Secondary Containment will be required*:

HSNO Classification	Trigger Quantity
6.1A, 6.1B, 6.1C, 8.2A, 9.1A	100L
6.1D, 6.5A, 6.5B, 6.7A, 8.2B, 9.1B, 9.1C	1,000L
6.6A, 6.7B, 6.8A, 6.9A, 8.2C, 8.3A, 9.1D	10,000L

* If an Oil has a low flashpoint, it will be regarded as a flammable liquid (Class 3) and will need to be contained within a flammable cabinet or store.

SECONDARY CONTAINMENT SOLUTIONS

Cabinets for Flammable & Corrosive Substances

- When isolation or separation of chemicals is required
- Provides safe storage of smaller volumes – individual containers up to 20L



Outdoor Rolltop Hardcovers

- Weather-tight, safe, secure outdoor storage
- Prevents rain from reducing the capacity of the secondary containment



Spill Pallets

- When flexibility and portability is required
- Large capacity ensures compliant secondary containment
- Convenient spill recovery



Work Floors

- Low profile – ideal working platform with optional ramp access
- When a lesser volume of secondary containment is acceptable



Drum Trolley

- Drum handling, dispensing and mobile containment all in one
- Large capacity ensures compliant secondary containment



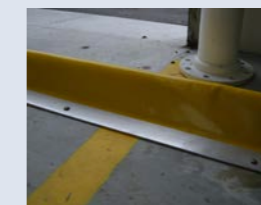
Flexible Bunding

- Provides incidental spill control during temporary storage of drums, tanks etc
- Easily manually relocated



Fixed Floor Bunding

- Low profile for high traffic areas
- In front of warehouses, entrance ways



Permanent Nib Wall

- Usually surrounding larger permanent storage tanks
- Fixed installation therefore offers no flexibility



ARE YOU COMPLIANT WITH HSNO?

- Establish a list of all Hazardous Substances on site, verify their location and ensure they are correctly labelled
- Ensure that SDS's (Safety Data Sheets) are current and easily-accessible
- Identify how spills might occur
- Check the adequacy of Secondary Containment systems
- Ensure appropriately-equipped Spill Kits are located close to where spills might occur and are identified by signage
- Minimise quantities stored on site
- Ensure the availability of materials and equipment to prevent spills entering storm water drains
- Staff training – does everyone know about:
 - What harms can be caused by each Hazardous Substance at the site?
 - Correct handling procedures?
 - The required PPE?
 - What to do in the event of a spill?
 - Where First Aid equipment is located and how to use it?
- When the workplace is clean again after a spill – don't forget to replace the clean up materials and equipment which were used - eg Sorbents, other Spill Kit contents, damaged bunding, protective safety clothing and safety equipment etc.