

Preventing liquid leaks and spills from entering the environment



Environment
Protection
Authority Victoria

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Fact sheet

Why should I prevent liquid leaks and spills from entering the environment?

Any liquid (hazardous or seemingly harmless) has the potential to pollute the environment and harm human health.

When released to the environment, liquids:

- can lead to loss of plant and animal life
- cause various diseases to spread within human populations
- reduce the quality of the environment.

Spills and leaks can occur despite best efforts. This fact sheet summarises some preventative steps that you can take to minimise spills and leaks from occurring and from leaving your site.

Implementing steps suitable for your site helps you manage your responsibilities, prevent harm to the environment and human health, and helps you save money.

What should I do?

Identify the risks and take action

- Identify areas and activities with potential for pollution due to leaks or spills.
- Identify actions you can take to control/reduce the risk and then implement them.
- Prepare an incident management plan outlining what to do in an emergency due to liquid leaks or spills.
- Inform and educate your staff of the processes to follow in an emergency.

Manage your site

- Prevent spills or leaks from occurring.
- Contain any spills or leaks that occur onsite.
- Manage outdoor areas to ensure only clean water leaves the site and enters the environment.

- Divert uncontaminated stormwater away from liquid storage areas and any other areas where contaminants may accumulate.
- Frequently check containers and secondary containment infrastructure for leaks.
- Maintain records of all activities (inspections, maintenance, audits, training, improvement plans) to demonstrate your efforts towards good site management.

Store your liquids properly

- Avoid storing liquids where there is a high risk of water pollution or land contamination (e.g. on bare ground or unsealed surfaces, next to drains, creeks etc.).
- Take precautionary measures to prevent pollution from spills and leaks (e.g. store containers inside a building, store on

sealed surfaces, implement and maintain secondary containment systems).

- Check if there are additional storage requirements (requirements of WorkSafe, applicable Australian Standards).

Further information

Contact EPA on
1300 372 842 (1300 EPA VIC)
or epa.vic.gov.au

Refer to the *Liquid storage and handling guideline* (EPA publication 1698) for more information on secondary containment including design considerations, guidance on assessing the volume, and material selection.

epa.vic.gov.au/liquids



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Use secondary containment systems where necessary

Secondary containment systems:

- prevent liquids from escaping into the environment if the primary liquid storage container or transfer mechanism fails or liquids otherwise leak or spills
- can include:
 - **Bunds** – raised, impermeable barriers forming the perimeter of secondary containment areas (e.g. barriers, guttering, curbing).
 - **Encasement** – storage containers with integral secondary containment (e.g. plastic pipes encased in a larger pipe which drains to a collection sump; placing drums inside larger, sealed plastic drums during transport by forklift).
 - **Grading of sealed surface areas to a blind drainage sump** – to form a contained area, either as part of a building or an external structure.



What other measures can I take to prevent surface pollutants and accidental spills from entering the environment?

Consider using a first flush system

First flush systems:

- prevent pollutants accumulated on outdoor surfaces from entering the stormwater system during rain events
- divert all of the water from the first flush for each rain event to storage, allowing for the testing, treatment and disposal of the contaminated water.

However, this does not guarantee that all water leaving the site will be free from contamination.

Consider carrying out all work indoors or under roofing within secondary containment areas.

This prevents contaminants from accumulating on outdoor surfaces.

Consider installing site containment or isolation (shutoff) systems

Site containment or isolation (shutoff) systems:

- can prevent liquids from leaving the site, via stormwater drains or by flowing down driveways or paths to the street drain and gutter system
- provide additional time to contain and clean up spilt liquids during a spill or fire, or at times of high risk of spills (such as delivery or dispatch).



What should I do in the event of a spill or leak?

You should report incidents which could harm the environment.

RESPOND IMMEDIATELY TO SPILLS

Stop
the spill



Contain
the spill



Report
the spill



Clean up
the spill



For more information contact EPA Victoria on **1300 372 842** (1300 EPA VIC) or email contact@epa.vic.gov.au.

If the incident occurs outside of business hours you will still be able to contact EPA Victoria.

