



RESOURCE BOOKLET





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All content in this booklet falls under the Hazero Disclaimer, for more information visit our website.

STORE

Starting Out: Hazardous Substances 101

We understand that managing your hazardous substances can be a seriously daunting task. If you're new to the role or have been given the role of improving this area of the workplace, then don't stress - this article has been put together for you.

Using a combination of our own information, and resources from the WorkSafe website, this is a high level but important overview for those starting out in hazardous substance management.

Introduction

Storing hazardous substances safely is an important part of protecting you and the environment that you work in. This includes storing only what you need, ensuring that incompatible substances are not stored together, and that decanted substances are stored in the correct type of container and labelled accordingly.

Where and how you store those hazardous substances is critical, and this will depend on both the class of substance and the quantity. Smaller amounts could be stored in approved storage cabinets, whereas larger amounts may need to be kept outdoors in dedicated outdoor bulk stores. In these instances, you may also need to keep them a certain distance from other premises, or public places.

Knowing your limits

Keep the amount of hazardous substances on site to a practical minimum. This will make it easier to manage what you have and will likely reduce your compliance costs. Keep containers closed whenever possible to keep vapours contained, and to limit the chance of a spill incident.

Signage and labelling

Depending on the types and amounts of hazardous

substances at your workplace, you may need safety signage to warn employees, contractors, and visitors to your site that these substances are present. On the containers that hold these substances, the labels must be legible and accurately reflect the contents inside.

Visit WorkSafe for further information specific to signage and labelling.

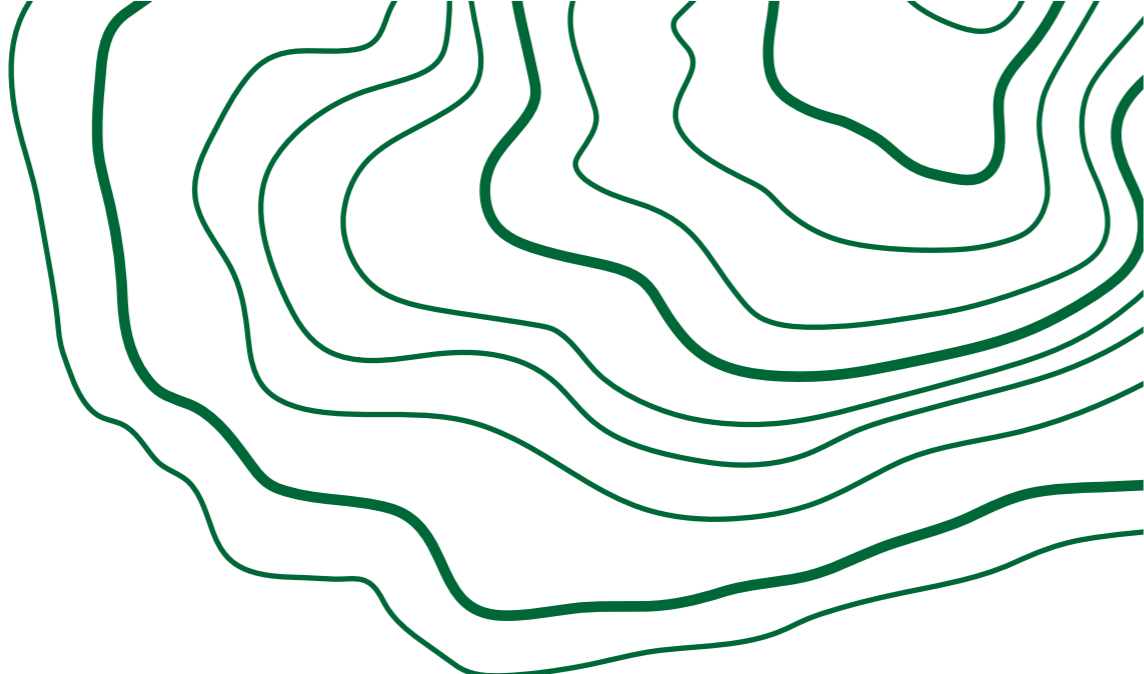


Chemshed Flammable Cabinet - 250L

Knowing how to store your substances

First, take a look at the safety data sheet for each substance, sometimes referred to the MSDS or SDS. These are mandatory for each hazardous substance that you use, store or handle at your workplace and are to be provided by the substance manufacturer or distributor. The SDS will outline the hazards specific to that substance, tell you how to store it safely and which other substances or materials it should be kept away from.

Smaller amounts of flammable or corrosive substances can be stored in an approved storage cabinet. Larger amounts may have to be stored in purpose-built rooms



Common Dangerous Goods

Class #	Class	Examples	Commonly found in products such as...	Commonly used in industries such as...
1	Explosives		Detonators, blasting materials, ammunition, retail fireworks, Christmas crackers, and party poppers.	Mining and quarrying operations, the oil and gas industry, and within civil construction
2.1	Flammable (Gas)	LPG, acetylene, and propane.	Gas cylinders, aerosols; some fly sprays and spray paints.	Engineering, workshops, and civil construction
2.2	Non-Flammable Non-Toxic Gas	Compressed air, nitrogen, argon, and helium	Gas cylinders.	Engineering workshops, construction, and automotive repairs
3.1A	Flammable (Liquid)	Petrol	Petrol	Workshops, mechanics, and manufacturing plants.
3.1B		Acetone, and ethanol,	Nail polish remover, and hand sanitiser.	
3.1C		P-xylene	Products made with PET; bottles, containers, and fabrics.	
3.1D		Diesel.	Diesel.	
4.1	Flammable (Solid - Readily combustible)	Titanium hydride.	Ceramics, pyrotechnics, and sports equipment	
4.2	Flammable (Substance - spontaneously combustible)	White phosphorous, magnesium powder, and aluminium powder.	Fertilisers, cleaning compounds, and ammunition.	
4.3	Flammable (Solid - dangerous when wet)	Magnesium powder, calcium carbide, solid sodium, lithium, and hydride.	Glass, detergents, and cleansers.	Manufacturing plants, steel and metal cutting.
5.1	Oxidising Agents	Oxygen, hydrogen peroxide, sulfuric acid, and potassium nitrate.	Oxygen for medical purposes, bleaches, water purifiers and fertilisers.	Healthcare, manufacturing plants, and water treatment plants.
5.2	Organic Peroxides	Epoxy resins, MEKP, and benzoyl peroxide.	Glass reinforced plastics, fibreglass, resin, polyester, and silicone products.	Construction, automotive workshops, and transportation.
6	Toxic Substances	Cyanides, phenols, cresols, pesticides, and lead compounds.	Household cleaners, pesticides, biological samples and clinical wastes, timber treatment chemicals, and solvents.	Agriculture, and laboratories.
8	Corrosive Substances	Sulphuric acid, sodium hydroxide, and batteries.	Cleaners and sanitisers.	Food processing, manufacturing, healthcare, hospitality, and agriculture.
9	Ecotoxics	Pesticides, paints, and cleaners.	Agrichemical chemicals.	Rural industries, landscaping, and commercial growing.

indoors, or dedicated dangerous goods (DG) stores outdoors (the latter will often be a more practical option).

Many substances will require secondary containment - sometimes referred to as 'bundling' - over a certain storage threshold. There are a number of secondary containment options available and we have a dedicated article here that gives more details as to when it is required.

Some types of substances have special rules. Take flammable substances as a case in point, the vapours from these can cause a fire or explosion if accidentally ignited. For your workplace, you need to remove ignition sources such as flames, sparks and other heat sources where these substances are used and stored. You may also need to ensure adequate ventilation is provided to prevent a build-up of vapours.

Is certification required?

If you have flammable, oxidising, toxic or corrosive substances at your workplace above certain quantities, you may need a location compliance certificate to certify that these substances are stored safely and according to the rules. WorkSafe have an excellent hazardous substances calculator that will confirm if you are over those thresholds, and therefore need one of these certificates or not.

What is meant by incompatible substances?

Not all hazardous substances can be located together safely. Different types of substances can cause a fire, explosion, or chemical reaction if they come into contact with each other. The SDS for each substance should detail what other substances needs to be kept separate from it but our dedicated chart gives a broad overview of incompatibles, as well as a one dedicated to class 8 corrosive substances.

Transferring or decanting hazardous substances

Try and keep your hazardous substances in the containers or drums that they originally arrived in. These containers will be safe, suited to the product inside and labelled correctly. However, there will be times when you will need to decant these substances into smaller containers for ease of use, or to mix substances in process containers before using them. While these will seem like straight forward tasks, the associated risks need to be understood - which the relevant SDS will help determine.

Containers holding hazardous substances must be in sound condition and made of a material that is suitable for containing the substance for as long as it is required.

An important consideration is ensuring that containers normally (or previously) used for food or beverages, are not used for hazardous substance storage or transfer, so they are not mistaken as such.

Do I need to be a 'certified handler'?

Some substances are so hazardous that they are restricted from use by anyone, other than a specially trained person that is designated as a 'certified handler'. WorkSafe have a dedicated section related to certified handlers, and when you need one onsite.

However even substances that no longer have certified handler requirements still need to be kept away from people not trained to work with them. Only personnel permitted by the business or authorised authority will be allowed to access these.

For more information on hazardous substances, visit the WorkSafe website.

Dangerous Goods Segregation Chart

Class #	Class	Signage	2.1	2.2	3	4.1	4.2	4.3	5.1	5.2	6	8	9
2.1	Flammable Gas		✓	3	5	5	5	5	5	⊖	3	3	✓
2.2	Non-Flammable Non-Toxic Gas		3	✓	3	SDS	5	SDS	SDS	5	SDS	3	✓
3	Flammable Liquids		5	3	✓	3	5	5	5	⊖	3	✓	✓
4.1	Flammable Solids		5	SDS	3	✓	3	5	5	5	3	SDS	✓
4.2	Spontaneously Combustible		5	5	5	3	✓	3	5	⊖	3	3	✓
4.3	Dangerous When Wet		5	SDS	5	5	3	✓	3	5	SDS	SDS	✓
5.1	Oxidising Agents		5	SDS	5	5	5	3	*	5	3	3	✗
5.2	Organic Peroxides		⊖	5	⊖	5	⊖	5	5	✓	3	3	✗
6	Toxic Substances		3	SDS	3	3	3	SDS	3	3	✓	SDS	✓
8	Corrosive Substances		3	3	✓	SDS	3	SDS	3	3	SDS	*	✓
9	Ecotoxics		✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓

Key

- ✓ Dangerous goods of the same class should be compatible; consult the SDS or the supplier about requirements for individual substances.
- * Dangerous goods of the same class could be incompatible or react dangerously; consult the SDS or the supplier about requirements for individual substances.
- SDS Segregation of these classes may be necessary. Consult the SDS or the supplier.
- 3 Dangerous goods of these classes should be kept apart by at least 3m. Consult the SDS or the supplier.
- 5 These combinations of dangerous goods should be segregated by at least 5m and kept in separate compounds or building compartments.
- ⊖ This requirement applies to organic peroxides for which dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required.
- ✗ Incompatible substances that must NOT be stored together. Must be separated so that substances do not come in contact. Keep in separate compounds or segregate by a distance of at least 3 metres.

CASE STUDY

THE FURNITURE MANUFACTURER CHEMSED FLAMMABLE CABINET - 250L | 04-1067

THE PROBLEM

A WorkSafe Inspector arrived unannounced to audit the storage of dangerous goods on site. Jonathan, the Operations Manager was on site and the nominated person in charge. It was two hours before the inspector left but not before delivering a pretty straight message. "Sort out the storage of your flammable liquids or our next visit could well see your manufacturing operation closed down."

The flammables were situated throughout the site. Jonathan picked up the phone and rang Hazero.

THE SOLUTION

When the Hazero team arrived on site, they quickly got up to speed with container sizes and how many of each, as well as what chemicals were held and the available space. Jonathan had expected he would be required to build a complex concrete block store but the solution turned out to be much simpler: a **Chemshed Flammable Cabinet - 250L**.



THE OUTCOME

Because container sizes were 20L or under, and the overall quantity was under 250L, Jonathan was able to consolidate all Class 3 flammable liquids into the cabinet, one that complied with the AS1940:2017 design requirements without him having to do anything other than position it in the area where the products were used most frequently.

The work site instantly became a much safer place - and the WorkSafe Inspector was satisfied with the solution as it solved the issues and was compliant. The factory got a clean bill of health without losing a minute of downtime from the issue.

Creating safer working environments

At Hazero our mission is zero hazards. Our extensive range of quality products will help you store, contain and control and clean-up dangerous goods and hazardous substances.

Need help creating a safer working environment? Contact our team today on **0800 688 844** or email us at info@hazero.co.nz. Our team are also available for on-site assessments across New Zealand.

Why Purchase a Chemshed Cabinet?

What are Dangerous Goods Cabinets?

Dangerous goods, also known as DG's, are substances that can pose a risk to people and the environment.

Dangerous goods cabinets will help you safely store your DGs. There are different Dangerous Goods cabinet for each dangerous goods class as they are designed to comply with the legislation surrounding a specific class.

The importance of storing dangerous goods is vital in keeping you and the people around you safe. Our Chemshed Storage Cabinets range from Flammable, to Corrosive, through to Toxic, Organic Peroxide, Oxidising Agents, as well as the storage of Aerosols and Gas Cylinders and right through to Agrichemicals.

If you need a reliable, compliant cabinet to store your dangerous goods - either indoors or outdoors, there's a Chemshed Cabinet for you!

Design and Compliance

Each class of dangerous good requires a different type of storage cabinet.

When you're buying a Chemshed storage cabinet you can be assured it has been designed and built to the relevant standard.

As an example, our **Chemshed Flammable Cabinet - 160L (04-1066)**, has been built to comply with the design requirements of AS1940:2017, and will help you safely store class 3 flammable liquids.

Some features include:

- Steel fabrication, with a powder coated protection. The rivets, spot welds, and hinges are made of sheet

steel. This is important as hinges and rivets are critical to a cabinet's structural integrity - if they fail, the cabinet will fall apart. That's not a worry with a Chemshed!

- The door handle offers a full-palm grip, that allows for easy, reliable opening and closing.
- The doors are also lockable - providing safety on site.
- A thing to note about the handle - if it was knocked off or melted in a fire, the cabinet would remain locked and closed, providing the same amount of fire protection. This is because the handles are not critical to the cabinet's structural integrity! Which means your cabinet would still be compliant.
- Inside the cabinet, are adjustable shelves and an in-built 150mm sump to meet the New Zealand compliance.
- The cabinet has a superior 2 point latch, with fully automatic sequentially self-closing doors that ensure that the inside door is always closing first.

Quality

Chemshed cabinets have a proven test record. They've been exposed to some devastating fires but come out doing what they do best, keeping your dangerous goods, safe - and by extension, the environment, and the people around you.

Chemshed Cabinets are designed and manufactured in New Zealand and Australia, to the relevant New Zealand or Australian Standards. Robotised production, makes impeccable consistency across the storage range.

Each Chemshed cabinet is quality checked by our very own New Zealand or Australian technicians.

When you purchase a Chemshed you are purchasing the real thing. Not an offshore imitation.

Chemshed 20-Year Warranty

Storing dangerous goods is a demanding task but the strength and reliability of Chemshed cabinets, mean they are right up to it. To prove our confidence in them, they are backed up with a 20-year Warranty, which will give you the peace of mind that you are purchasing a solution that rises to the storage challenge, like none other.



Expert advice, from an expert team

We're a NZ owned and operated company with our team based in multiple locations throughout NZ. Purchasing a Chemshed supports jobs here in New Zealand.

Our team have been in the industry since 2006 and since then we've helped multiple companies across a range of industries, throughout New Zealand.

We've helped them comply and safeguard their hazardous substances helping them to create safer working environments.

Chemshed is one of the longest standing and most trusted brands in DG storage in New Zealand. When you purchase a Chemshed you are supported throughout your entire buyer journey.

With Chemshed cabinets stocked in both in Christchurch and Auckland, we can ensure prompt and efficient delivery.

Our team can help you at any time throughout your journey to ensure you are complying with the relevant legislation you need to meet by law.

What are you waiting for? Join the many happy customers that have invested in a Chemshed today and help create a safer working environment for your workplace.

CONTAIN

What is Secondary Containment and When is it Required?

What is secondary containment?

A primary container is the vessel that holds the hazardous substance, for example a bottle, 20L container, 200L drum or 1,000L IBC (intermediate bulk container). Secondary containment could be best described as the system in place to contain spills, leaks or the failure of the primary container stored on it.

Why is it required?

In the many workplaces storing or using hazardous substances, the primary containers that hold such liquids are vulnerable to damage. This vulnerability can come from poor storage practices, mismanaged decanting or transfer procedures, or damage from vehicles such as forklifts.

A secondary containment system is often required to contain these hazardous liquids if they escape from the primary container, and to prevent them from escaping into the wider environment.

That environment might be the immediate workplace and therefore may put employees and other personnel at risk. Or it might be a nearby waterway which will quickly pollute and impact marine and bird life, as well as their ability to be used for domestic, commercial or recreational purposes.

How is it achieved?

Secondary containment has been historically achieved by building 'berms' from concrete or block walls, earth mounds or large tubs. In recent years however, it has been made much less complex with low profile work floors, spill containment pallets and flexible bunding options. These are designed to be quickly repositioned as your site and operational requirements change over time.



Controlco Single IBC Spill Pallet

Secondary Containment Regulations Guide

Step 1 - What is the size of my largest container?	Step 2 - What are the classes of the products stored?	Step 3 - What is the total amount of product stored in the area?	Step 4 - How much bunding is required to have?	Step 5 - What products will assist me in meeting that requirement?
up to 60L	Class 3 and 5	less than 5,000L more than 5,000L	At least half the pooling potential The greater of; 1. 2,500L 2. 1/4 of that total pooling potential	Work Floors (01-1022, 01-1023) Floor Bunding or Spill Pallets (01-1020, 01-1021)
60 to 450L	Class 6, 8 and 9*	less than 20,000L more than 20,000L	At least 25% of the pooling potential The greater of; 1. 5,000L 2. 5% of that total pooling potential	Work Floors (01-1022, 01-1023) Floor Bunding or Spill Pallets (01-1020, 01-1021)
Over 450L	Class 3 and 5	less than 5,000L more than 5,000L	At least that pooling potential The greater of; 1. 5,000L 2. half that total pooling potential	Spill Pallets (01-1020, 01-1021) Floor Bunding or Spill Pallets (01-1020, 01-1021)
	Class 6, 8 and 9*	less than 20,000L more than 20,000L	25% of the total pooling potential or 110% of the largest container, whichever is greater The greater of; 1. 5,000L 2. 5% of that total pooling potential	Spill Pallets (01-1020, 01-1021) Floor Bunding or Spill Pallets (01-1020, 01-1021)
	Class 3 and 5	less than 5,000L more than 5,000L	At least that pooling potential The greater of; 1. 5,000L 2. half that total pooling potential	Spill Pallets (01-1025, 01-1026) Contact your Controlco supplier, or phone 0800 688 844.
	Class 6, 8 and 9*	less than 20,000L more than 20,000L	25% of the total pooling potential or 110% of the largest container, whichever is greater The greater of; 1. 5,000L 2. 5% of that total pooling potential	Spill Pallets (01-1025, 01-1026) Contact your Controlco supplier, or phone 0800 688 844.

* Certain products must be segregated where appropriate to ensure that the leakage of one substance does not adversely affect the container of another substance. Information is based on HSWR Regulations 2017, the table above is provided as a guide only. The final onus is on the client to ensure that all aspects of the Regulations are complied with when meeting secondary containment requirements.

Secondary Containment Thresholds

The point at which your worksite requires secondary containment depends on what class of liquids you have on site, and in what quantities.

For really hazardous liquids, it is required from very low levels. For others, you are allowed to have a larger amount before secondary containment is required, while for many non-hazardous substances, little to none may be needed at all.

While not exhaustive, the table to the right details some of the more common classes, and at what point secondary containment is required.

For further information including classes beyond those listed about, visit the WorkSafe website.

Hazard Classification	Amounts Where the Need For Secondary Containment Is Triggered
Class 5.1.1A	50L
Class 5.1.1B	500L
Class 5.2A, 5.2B	10L
Class 5.2C, 5.2D	25L
Class 5.2E, 5.2F	100L
Class 6.1A, 6.1B, 6.1C	100L
Class 6.1D, 6.5A, 6.5B, 6.7A	1,000L
Class 8.2A	100L
Class 8.2B	1,000L
Class 8.2C, 8.3A	10,000L
Class 9.1A	100L
Class 9.1B, 9.1C	1,000L
Class 9.1D	10,000L

What level of secondary containment is required if the amounts are triggered?

The below table is a summary of the requirement levels for secondary containment, as per the Health & Safety at Work (Hazardous Substances) Regulations 2017.

Requirements for Class 1-5

Container Size	Total Pooling Potential	Secondary Containment Capacity
Up to 60L	Less than 5,000L	At least 50% of the total
	5,000L or more	2,500L or 25% of the total*
More than 60L and up to 450L	Less than 5,000L	At least that total potential
	5,000L or more	5,000L or 50% of the total*
More than 450L	Less than 5,000L	At least that total potential
	5,000L or more	5,000L or 50% of the total*

Requirements for Class 6-9

Container Size	Total Pooling Potential	Secondary Containment Capacity
Up to 60L	Less than 20,000L	At least 25% of the total
	20,000L or more	5% of the total or 5,000L*
More than 60L and up to 450L	Less than 20,000L	25% of the total, or 110% of the capacity of the largest container*
	20,000L or more	5% of the total or 5,000L*
More than 450L	Less than 20,000L	25% of the total, or 110% of the capacity of the largest container*
	20,000L or more	5% of the total or 5,000L*

*whichever is greater

This is a summary of Regulations 13.30, 13.31, 13.32 and 13.33 of the above mentioned Regulations and should be used as a guide in the context of all other components within it.

Choosing the Right Polyethylene Containment Unit

Spill containment comes in a variety of forms but there are several things that make High Density Polyethylene (HDPE) the most effective, and why most Controlco secondary containment products are made from this material.

The chart on the following pages will help you determine if your hazardous substances are suitable for short or long term storage. Or, in some cases they may not be suitable at all.

If a particular chemical is not listed below, please contact our expert team for advice.

Products

The following table lists all Hazero products that the polyethylene compatibility guide is applicable to.

Low Profile Work Floors	Drum / IBC Spill Pallets	Outdoor Containment
01-1022	01-1020	01-1061
01-1023	01-1021	01-1078
01-1024	01-1043	01-1079
01-1072	01-1025	01-1080
01-1073	01-1026	
01-1074	01-1085	
01-1082	01-1086	
01-1083	01-1087	
01-1084		
01-1081		

Spill Trays	Overpack Drums	Mobile Containment
01-1032	03-1003	01-1029
01-1036	03-1001	
01-1038	03-1000	
01-1040		

KEY

L (Long term) - Products should be suitable for prolonged or repeated contact with these substances, under the conditions specified.

S (Short term) - These substances may adversely affect the polyethylene. Controlco products may be suitable for intermittent contact; however, some deterioration in properties may occur. The user should perform qualification tests before or during usage of the container.

N (Not suitable) - These substances aggressively attack polyethylene or have vapor pressures incompatible with closed containers. Do not use polyethylene containers in these applications.

Polyethylene Compatibility Guide

Acetaldehyde (40%)	L	Barium Chloride	L	Chromic Acid (50%)	S	Ethylene Glycol	L
Acetamide	L	Barium Cyanide	L	Cider	L	Ethylene Oxide	N
Acetic Acid (50%)	L	Barium Hydroxide	L	Citric Acid (All Conc.)	L	Fatty Acids	L
Acetic Acid (100%)	N	Barium Nitrate	L	Clorox Bleach	L	Fatty Alcohol Sulfonate	L
Acetic Acid Anhydride	S	Barium Sulfate	L	Coconut Oil Alcohols	L	Ferric Salts	L
Acetic Ether	S	Barium Sulfide	L	Cola Concentrates	L	Ferric Sulfate	L
Acetone	L	Battery Fluid Acid	S	Compressed Air Conditioning Oil	L	Ferrous Salts	L
Acetylene Tetrabromide	S	Beef Tallow Emulsion, Sulfonated	L	Copper Salts	L	Ferrous Sulfate	L
Acrylic Emulsions	S	Beer	L	Copper Cyanide	L	Fertilizer Salts	L
Acrylonitrile	L	Benzaldehyde	L	Copper Nitrate	L	Fish Solubles	L
Adipic Acid	L	Benzene	L	Copper Sulfate	L	Fluoboric Acid	L
Aliphatic Hydrocarbons (Hexane, Octane, hexene, Octene, Etc.)	L	Benzene Sulfonic Acid	S	Corn Oil	L	Fluosilicic Acid (All Conc.)	L
Allyl Alcohol (96%)	L	Benzoic Acid	L	Cottonseed Oil	L	Formaldehyde (40%)	L
Alum (Aqueous Solutions)	L	Benzyl Alcohol	L	Cresol (90%)	L	Formamide	L
Aluminum Chloride (20%)	L	Benzyl Chloroformate	L	Cresylic Acid	L	Formic Acid (All Conc.)	L
Aluminum Fluoride	L	Bismuth Salts	L	Crotonic Aldehyde	L	Fruit Pulp	L
Aluminum Hydrogen Solution (10%)	L	Bleach Lye (10%)	S	Cuprous Chloride Sat'd	L	Fuel Oil	L
Aluminum Hydroxide	L	Black Liquor	L	Cyclohexane	L	Furfural (100%)	L
Alums (All Types)	L	Borax Cold Sat'd	L	Cyclohexanol	L	Furfuryl Alcohol	N
Ammonia (Anhydrous)	L	Boric Acid Dilute	L	Cyclohexanone	S	Gallic Acid Sat'd	L
Ammonia (Aqueous)	L	Boric Acid Conc.	L	Detergents, General	L	Gasoline	L
Ammonia (100% Dry Gas)	L	Bromine, Liquid	N	Developer, Photographic	L	Gasohol	L
Ammonium Salts	L	Bromine, Water	N	Dextrin Sat'd	L	Gelatine	L
Ammonium Acetate	L	Bromobenzene	N	Dextrose Sat'd	L	Gin	L
Ammonium Bifluoride	L	Butadiene	L	Dibutyl Ether	N	Gluconic Acid (All Conc.)	L
Ammonium Carbonate 50%	L	Butane	L	Dibutylphthalate	S	Glucose	L
Ammonium Chloride	L	Butanediol (100%)	L	Dibutyl Sebacate	S	Glycerine	L
Ammonium Hydrogen Fluoride (50%)	L	Butanol	L	Dichloroacetic Acid	S	Glycol	L
Ammonium Hydroxide	L	Butyl Acetate	L	Dichloroacetic Acid, Methyl Ester	S	Glycol Ethers	L
Ammonium Metaphosphate Sat'd	L	Butyl Alcohol (100%)	L	Dichlorobenzene, Liquid	N	Glycolic Acid (All Conc.)	L
Ammonium Nitrate (10%)	L	Butylene	N	Dichloroethylene	N	Grape Sugar Sat'd Aq.	L
Ammonium Nitrate Sat'd	L	Butylene Glycol	L	Diesel Fuel	S	Heptane	L
Ammonium Persulfate Sat'd	L	Butylene Liquid	N	Diesel Oil	S	Hexane	L
Ammonium Phosphate	L	Butyl Phenol	N	Diethyl Carbonate	L	Hexanol Tert	L
Ammonium Sulfate (1%)	L	Butyric Acid	L	Disodium Phosphate	L	Hydrazine Hydrate	L
Ammonium Sulfate Sat'd	L	Calcium Carbonate	L	Diazo Salts	L	Hydrosulfite (10%)	L
Ammonium Sulfide Sat'd	L	Calcium Chloride	L	Diethylene Glycol	L	Hydroxylamine Sulfate	L
Ammonium Thiocyanate Sat'd	L	Calcium Hydroxide	L	Diethanolamine	S	Hydrazine (35%)	L
Amyl Acetate	L	Calcium Hypochlorite	L	Diglycolic Acid (30%)	L	Hydrazine Hydrochloride	L
Amyl Alcohol (100%)	L	Calcium Nitrate (50%)	L	Di-isobutyl Ketone	S	Hydroiodic Acid (All Conc.)	L
Amyl Chloride	N	Calcium Sulfate	L	Dimethylamine	S	Hydrobromic Acid (50%)	L
Aniline (100%)	S	Camphor Oil	N	Dimethyl Formamide	S	Hydrocyanic Acid Sat'd	L
Aniline Hydrochloride	S	Carbon Disulfide	N	Dinonyl Phthalate	N	Hydrochloric Acid (All Conc.)	L
Animal Fats	L	Carbonic Acid (Aq.CO2)	L	Diocetyl Phthalate	N	Hydrofluoric Acid (All Conc.)	L
Anti-Freeze	L	Carbon Monoxide	L	Dioxane	L	Hydrofluorilic Acid (All Conc.)	L
Antimony Salts	L	Carbon Tetrachloride	N	Diphenyl Oxide	N	Hydrogen Bromide (10%)	L
Antimony Trichloride 90%	L	Castor Oil Conc.	L	Electrolyte	L	Hydrogen Peroxide (90%)	L
Aqua Regia	N	Caustic (Aqueous)	L	Emulsions, Photographic	L	Hydrogen Phosphide 100%	L
Aqueous Salt Solutions (NaCl)	L	Caustic Potash Sol. (50%)	L	Ethanol	L	Hydroquinone	L
Aqueous Alkalies (NaOH)	L	Caustic Soda Sol. (10%)	L	Ether	N	Hydrogen Sulfide	L
Arsenic Acid	L	Chloral Hydrate	L	Ethyl Acetate (100%)	S	Hypochlorous Acid	L
Arsenic Salts	L	Chloroethanol	L	Ethyl Alcohol	L	Inks	L
Barium Salts	L	Chloroethane	L	Ethyl Butyrate	S	Iodine (Aic. Sol.) Conc.	L
Barium Carbonate	L	Chloric Acid (10%)	L	Ethyl Chloride	N	Iron Salts	L
		Chloroacetic Acid	L	Ethyl Ether	N	Iso-Octane	S
		Chlorobenzene	L	Ethylene Chloride	N	Isopropyl Acetate	L
		Chloroform	N	Ethylene Chlorohydrin	L	Isopropyl Alcohol	L
		Chloromethane	N	Ethylene Diamine	L	Isopropyl Ether	N
		Chlorosulfonic Acid 100%	N	Ethylene Dichloride	N		
		Chrome Alum Sat'd	L				

Jetfuel	S	Oils and Fats	L	Propyl Alcohol	L	Stannous Salts	L
Kerosene	S	Oleic Acid (All Conc.)	L	Propylene Dichloride (100%)	L	Starch Solution Sat'd	L
Lactic Acid (All Conc.)	L	Oleum Conc.	N	Propylene Glycol	L	Stearic Acid (All Conc.)	L
Lanolin	L	Olive Oil	L	Propylene Oxide	L	Succinic Acid	L
Latex	L	Orange Extract	L	Pyridine	S	Sugar Solutions, Glucose, Lactose, Sucrose, etc.	L
Lead Salts	L	Oxalic Acid (All Conc.)	L	Rayon Coagulation Salts	L	Sulfur	L
Lead Acetate Sat'd	L	Palmitic Acid	N	Rust Inhibitors	L	Sulfuric Acid (98%)	S
LIME	L	Palm Oil	S	Sea Water	L	Sulfuric Acid, Fuming	N
Linseed Oil	L	Paraffin Emulsions	L	Selenic Acid	L	Sulfurous Acid	L
Lithium Salts	L	Paraffin Oil	L	Sewage	L	Sulfuryl Chloride	N
Lube Oil	L	Perchloric Acid (50%)	L	Shortening	L	Tallow	L
Magnesium Salts	L	Perchloroethylene	N	Silicic Acid	L	Tannic Acid	L
Magnesium Carbonate	L	Petroleum	L	Silicone Oil	L	Tanning Extracts	L
Magnesium Hydroxide	L	Petroleum Ether	S	Silver Salts	L	Tartaric Acid Sat'd	L
Magnesium Nitrate	L	Phenol (90%)	N	Silver Nitrate	L	Tetrachloroethane	N
Magnesium Oxide	L	Phenylhydrazine	N	Soda Solution (All Conc.)	L	Tetrachloroethylene	N
Magnesium Sulfate	L	Phosphoric Acid All Conc	L	Soda Ash	L	Tetraethyl Lead	L
Maleic Acid	L	Phosphorous Chlorides	S	Sodium Salts	L	Tetrahydrofuran	N
Malic Acid (1%)	L	Phosphorous Yellow (100%)	L	Sodium Acetate Sat'd	L	Tetrahydronaphthalene	N
Mercuric Salts	L	Phosphorous Pentoxide	L	Sodium Acrylates	L	Thionyl Chloride	N
Mercurous Salts	L	Photographic Solutions	L	Sodium Benzoate	L	Tin Salts	L
Mercury	L	Phthalic Acid (All Conc.)	L	Sodium Bicarbonate	L	Titanium Salts	S
Methanol	L	Phthalic Anhydride	L	Sodium Bisulfate (10%)	L	Toluene	S
Methyl Acetate	L	Pickling Baths, Sulfuric Acid, Hydrochloric Acid	L	Sodium Bisulfite	L	Toluene Sulfonic Acid (All Conc.)	S
Methyl Alcohol (100%)	L	Picric Acid (1%)	L	Sodium Bromate	S	Transformer Oil	L
Methyl Amine (32%)	L	Plating Solutions	L	Sodium Bromide	L	Tributylphosphate	L
Methyl Bromide	N	Potash	L	Sodium Bromide Dilute Sol.	L	Trichloroacetic Acid	S
Methyl Chloride	N	Potassium/Aluminum Sulfates (50%)	L	Sodium Carbonate	L	Trichloroethane	N
Methylene Chloride	N	Potassium Bichromate	L	Sodium Chlorate	L	Trichloroethylene	N
Methyl Ethyl Ketone	S	Potassium Borate (10%)	L	Sodium Chloride	L	Tricresyl Phosphate	L
Methyl Isobutyl Ketone	S	Potassium Bromide	L	Sodium Chlorite	L	Triethanolamine	L
Methyl Isopropyl ketone	S	Potassium Chlorate	L	Sodium Chromate	L	Trioctyl Phosphate	N
Methyl Sulfate	L	Potassium Chloride	L	Sodium Disulfite	L	Trisodium Phosphate Sat'd L	L
Methyl Sulfuric Acid (All Conc.)	L	Potassium Chloride	L	Sodium Dithionite (10%)	L	Trichloroethylene	N
Milk	L	Potassium Chromate	L	Sodium Ferricyanide	L	Turpentine Oil	N
Mineral Oils	L	Potassium Cyanide	L	Sodium Ferrocyanide Sat'd	L	Urea	L
Molasses	L	Potassium Dichromate 40%	L	Sodium Fluoride Sat'd	L	Urine	L
Monochloroacetic Acid Ethyl Ester	L	Potassium Ferri/ Ferro Cyanide Sat'd	L	Sodium Hydroxide Conc.	L	Vegetable Oils	L
Monochloroacetic Acid Methyl Ester	L	Potassium Fluoride	L	Sodium Hypochlorite	L	Vinegar	L
Morpholin	L	Potassium Hydroxide	L	Sodium Iodide	L	Vanilla Extract	L
Mowilith D	L	Potassium Iodide	L	Sodium Nitrate	L	Wax Alcohol	N
Muriatic Acid/Naptha	S	Potassium Nitrate Sat'd	L	Sodium Oxalate	L	Wetting Agents	L
Napthalene	S	Potassium Perborate Sat'd	L	Sodium Persulfate	L	Whisky	L
Nickel Salts	L	Potassium Perchlorate	L	Sodium Phosphate	L	White Acid (75%)	L
Nicotine, Dilute	L	Potassium Permanganate	L	Sodium Silicate	L	Wine	L
Nicotinic Acid	L	Potassium Persulfate Sat'd	L	Sodium Sulfate	L	Xylene	N
Nitric Acid <50%	L	Potassium Phosphates	L	Sodium Sulfide	L	Yeast	L
Nitrobenzene	S	Potassium Sulfate	L	Sodium Sulfite	L	Zinc Salts	L
Nitrotoluene	S	Propanol	L	Sodium Sulfonates	L	Zinc Sulfate	L
Octyl Cresol	L	Propargyl Alcohol (7%)	L	Sodium Thiosulfate	L		
		Propionic Acid (50%)	L	Spindle Oil	L		
				Stannic Salts	L		

CONTROL & CLEAN-UP

Important User Notice

This data is a compilation of existing data obtained from leading chemical companies and independent reports and does not represent actual testing conducted. This report is offered as a guide and was developed from information which, to the best of our knowledge, was reliable and accurate. Due to variables and conditions of application beyond our control, none of the data shown in this guide is to be construed as a guarantee, expressed or implied. We assume no responsibility, obligation, or liability in conjunction with the use or misuse of the information herein.

Spill Absorbents - An Overview

What are spill absorbents?

Spill absorbents are any material that will safely and reliably soak up spills of a hazardous nature. However, the key words here are safely and reliably and many materials are risky when used in hazardous situations. To that end, we have grouped our solutions into 2 types that rise to those measures:

1. Loose Absorbents
2. Polypropylene Sorbents

What are Loose Absorbents?

Loose absorbents are granulated material typically supplied in varying size bags. Loose absorbents work particularly well on rough or damaged surfaces, or any situation where pad-style sorbents could prove ineffective.

At Hazero we have 4 different types of loose absorbent:

1. Mineral Sponge - an inert mineral, white and chalky in texture
2. Enviropeat - a sphagnum peat, brown and 100% organic
3. Rocksorb - a non-toxic pumice absorbent, mined in NZ
4. Absorbent W - a reclaimed pulp product, floats and selectively absorb hydrocarbons

What are Polypropylene Sorbents?

Polypropylene sorbents are a rugged range of products, made from melt-blown polypropylene, which is a very fast and effective absorbent, and one that will hold and retain liquid like nothing else. It is a synthetic product that has no shelf life, meaning they lose none of their effectiveness, regardless of their age.

Polypropylene sorbents come in 6 different forms:

1. Pads - roughly 500mm square, and widely used for cleaning up spills on flat surfaces.
2. Rolls - same as the above but supplied in roll form. Rolls come in 50m lengths with options of 400 or 800mm in width.

3. Socks - 75mm in diameter, and either 1.2 or 3m in length. Designed to surround a spill and prevent it from spreading further.
4. Pillows - not unlike what we sleep on, just a bit smaller! Their purpose is for plugging drain grates or going under machinery.
5. Booms - a much larger version of the sock, these come in 3m lengths with options of 130 or 200mm in diameter. Booms are designed to float and selectively absorb oils and other hydrocarbons off water.
6. Sump Pillows - these are a tube-shaped pillow which will repel water and selectively absorb hydrocarbons from drains and boat bilges. They come with a short rope to secure in place.

What is the difference between Oil Only, General Purpose and Chemical sorbents?

It is important to know the difference between the 3 types of sorbent products - noting that the same terminology is also used for spill response kits.

- Oil Only: will repel water and selectively absorb oils, fuels and other hydrocarbons. Typically used in marine situations. White in colour.
- General Purpose: will absorb the above liquids but also water-soluble liquids as well, such as coolants, brake fluid, paints and mild chemicals. Grey in colour.
- Chemical: designed to absorb all the above but also most of the nasty acids, alkalis and other harsh chemicals. Bright yellow in colour.

Controlco Sorbent Sock - Oil Only

Controlco Sorbent Pillow - General Purpose

Controlco Sorbent Pad - Chemical

Oil Only, General Purpose or Chemical - what do I need?

Our Polypropylene Compatibility Guide can help you choose the right sorbent to control and clean-up your hazardous substance.

Available on page 22.

How much do sorbents absorb?

This will depend entirely on the liquid being absorbed and the viscosity of that liquid. Generally speaking, one sorbent pad will absorb up to 1L of fuel, light oil or mild chemical. For more details on individual products, please refer to the specification sheets on our website.



How do I use sorbents to control and clean-up a hazardous substance spill?

Mostly the process for cleaning up smaller and non-hazardous spills is straight forward. However, there are some good practice guidelines that we have drawn up, which will help safeguard you or those responding, to ensure the impact of the spill is minimised and cleaned up as effectively as possible.

Refer to page 21.



How do I dispose of used absorbents?

This does vary from region to region around the country, with different requirements coming from regional councils, depending on what facilities they have in the area to manage and take hazardous waste and clean up material.

We recommend you call your local council or visit their website, for disposal instructions specific to your region.



Spill Response Procedure



1 Assessment and Assistance

- Assist injured persons, ensuring your own safety is not compromised
- Evacuate all unrequired personnel from the area
- Assess your capability to manage the spill based on the amount spilt and what you have to respond to it
- Report incident to management and call for further assistance if required



2 Personal Protection

- Assess the nature of the liquid spill, referring to MSDS sheets if available
- Select and fit the appropriate level of personal protective equipment (PPE)



3 Containment

- Stop the spill at the source - if safe and possible to do so
- Isolate nearby storm water drains using drain protectors or sorbent pillows
- Surround the spill using sorbent socks



4 Spill Absorption and Disposal

- Ensure that your absorbent is suitable for use with the liquid in question
- Working from the outer edge of the spill and working back towards the source, use sorbent pads and loose absorbents to mop up the spilt liquid
- Once mop up is completed, place all contaminated absorbents and PPE into dedicated waste disposal bags or salvage drums
- Decontaminate equipment and personnel
- Arrange removal of contaminated products with a reputable waste collection provider



5 Debrief and Conclusion

- Advise management that the incident is complete
- Refer report to any applicable safety committee
- Review the incident and ensure that response procedures were followed correctly



6 Restock your Spill Kit

- Be prepared for any future spills by restocking any sorbents, loose absorbents, or any other item you may have used to clean up the spill.

Using Sorbents in a Hazardous Substance Spill

Using Sorbent Socks

1. Use the socks to dam the spill.
2. Surround leaking containers.
3. Form a barrier around drains.

Using Sorbent Pillows

1. Use sorbent pillows to pick up large, deeper spills.

Using Hazardous Waste Bags

1. Use the Waste Bag to place all contaminated sorbents and personal protective equipment.
2. Contact your local council for the correct disposal procedures in your specific area.

Using Sorbent Pads

1. Use the pads to mop up the spill, working back from the socks towards the source of the leak.

Using Loose Absorbents

1. Use the loose absorbent on uneven surfaces or rough ground.

Refilling Spill Kits

Make sure you are prepared for any future spills by replacing any used items and keep your Spill Kit topped up.



Choosing the Right Polypropylene Sorbent

Spill Kits are packed with polypropylene sorbents to help you control and clean-up hazardous substance spills quickly and most importantly, safely. Our sorbents are available in three types; **oil only**, **general purpose** and **chemical**.

Oil only sorbents are white in colour, general purpose sorbents are grey, and chemical sorbents are yellow.

The chart below will help you pick the right sorbent for your hazardous substance spill.

If a particular chemical is not listed below, please contact our expert team.

Polypropylene Chemical Compatibility Guide

	Oil-Only	General Purpose	Chemical
Acetaldehyde		■	■
Acetic Acid		■	■
Acetic Acid Amyl Ester	■	■	■
Acetic Anhydride		■	■
Acetone	■	■	■
Acetyl Chloride	■	■	■
Acrolein	■		■
Acrylic Acid			■
Acrylic Emulsions		■	■
Acrylonitrile		■	■
Allyl Alcohol		■	■
Aminobenzoic Acid			■
Ammonia (Anhydrous)	■	■	■
Ammonium Hydroxide	■	■	■
Amyl Acetate	■	■	■
Amyl Alcohol		■	■
Aniline		■	■
Aqua Regia		■	■
Aviation Fuel	■	■	■
Benzene	■	■	■
Benzoic Ether	■	■	■
Benzonitrile		■	■
Benzyl Alcohol		■	■
Benzyl Chloride		■	■
Boric Acid			■
Brake Fluid	■	■	■
Bromine		■	■
Butyl Acetate	■	■	■
Butyl Alcohol	■	■	■
Butylamine		■	■
Butyric Acid	■		■
Calcium Hydroxide		■	■
Carbolic Acid			■
Carbon Disulphide		■	■
Carbon Tetrachloride	■	■	■
Castor Oil	■	■	■
Chloracetic Acid			■
Chlorobenzene		■	■
Chlorine		■	■
Chlorine Soda			■
Chloroform	■	■	■
Chlorosulphuric Acid			■
Chlorox (full bleach)			■
Chromic Acid			■
Citric Acid			■
Corn Oil		■	■
Cottonseed Oil		■	■
Cresol		■	■
Cyclohexane		■	■
Detergents		■	■
Dichlorobenzol		■	■
Diethyl Amine		■	■
Diethyl Ether		■	■
Di-Nitrobenzene		■	■
Dioxan		■	■
Disooctyl Phthalate		■	■
Ether		■	■
Ethyl Acetate		■	■
Ethyl Alcohol		■	■
Ethyl Chloride		■	■
Ethyl Ether		■	■
Ethylene Glycol		■	■
Ethyl Propionate		■	■
Formaldehyde			■
Formic Acid			■
Fuel Oil		■	■
Galvanic Liquids		■	■
Gearbox Oil		■	■
Glacial Acetic Acid		■	■
Glycerol			■
Hemp Oil		■	■
Hepatane		■	■
Hexane		■	■
Hydrazine		■	■
Hydrochloric Acid		■	■
Hydrofluoric Acid		■	■
Hydrogen Cyanide		■	■
Hydrogen Peroxide		■	■

	Oil-Only	General Purpose	Chemical
Isobutyl Alcohol	■	■	■
Isobutyric Acid	■	■	■
Isopropyl Acetate	■	■	■
Isopropyl Alcohol	■	■	■
Kerosene	■	■	■
Keytones	■	■	■
Linseed Oil	■	■	■
Lubricating Oil	■	■	■
Magnesium Oxide Hydrate		■	■
Methyl Alcohol	■	■	■
Methyl Chloride	■	■	■
Methyl Ether	■	■	■
Methyle Ethyl Ketone	■	■	■
Methylmethacrylate	■	■	■
Methyl Propionate	■	■	■
Milk		■	■
Mineral Oil	■	■	■
Mineral Spirits	■	■	■
Motor Oil	■	■	■
Naphtalene	■	■	■
Nitric Acid			■
Nitrobenzene Acid			■
Nitrobenzol		■	■
Nitrotoluen	■	■	■
Octane	■	■	■
Oleic Acid	■	■	■
Olive Oil	■	■	■
Paraffin	■	■	■
Perchloroethylene	■	■	■
Petroleum Ether	■	■	■
Phenol		■	■
Phenyl Formic Acid			■
Phosphoric Acid			■
Potassium Hydroxide	■	■	■
Propanol		■	■
Propionic Acid	■	■	■
Propyl Alcohol	■	■	■
Propylene Glycol	■	■	■
Quinoline		■	■
Resorcinol		■	■
Saccharose		■	■
Salt Solutions (metallic)		■	■
Silicone Oil	■	■	■
Silver Nitrate		■	■
Soap Solutions	■	■	■
Sodium Bicarbonate		■	■
Sodium Chloride		■	■
Sodium Hydroxide		■	■
Sodium Nitrate		■	■
Stannic Chloride		■	■
Starch		■	■
Styrene	■	■	■
Sucrose		■	■
Sulphuric Acid			■
Synthetic Motor Oil	■	■	■
Tannic Acid			■
Tin Chloride		■	■
Toluene	■	■	■
Transformer Oil	■	■	■
Trichloroethylene	■	■	■
Triethylene Glycol	■	■	■
Turpentine	■	■	■
Urine		■	■
Vinegar		■	■
Vinyl Acetate	■	■	■
Water		■	■
Xylene	■	■	■

This information is provided as a guide only. No claims or warranties are expressed or implied as to the absolute accuracy of the data supplied. In all cases it is assumed chemicals in question are at ambient temperatures and pressure and are used in basic state, not in combination or mixtures. Small test sampling by users is recommended to ensure safe application.

Safety Showers - An Overview

What is a Safety Shower?

A safety shower is a plumbed-in fixture designed as a first response measure to wash-down personnel that have been splashed or doused in a hazardous liquid or substance.

What is an Eye Wash/Face Wash unit?

An eye wash is either a permanent plumbed-in fixture or mobile unit designed as a first response measure to wash the eyes and/or face of a person that has been splashed by a hazardous liquid or substance.

What is the difference between Safety Showers and Eye Wash Units?

Safety Showers drench and wash-down the whole body, whereas an eye/face wash are designed to rinse the eye and facial areas only.

Differences between free-standing, wall mounted and portable options?

Free-standing/Pedestal

Provides the ability to mount the unit in an open area so it can be near areas of risk and easily visible and accessible to surrounding users.



Wall mounted

Excellent for corridors, walkway areas or in situations where chemicals are being handled within a walled or workbench area.



Portable

Gravity fed and pocket eye wash units are great for mobile operators or smaller satellite sites and areas. Chemicals in the eye cause serious damage within 1-5 seconds. Washing eyes within a few seconds can be key in minimising eye damage.



How does a Safety Shower work?

Upon arriving at the unit, the user either pulls down on a lever above and depending on the model, operates a hand lever or foot pedal to turn on the eye/face wash function.

What are the Safety Shower and Eye Wash regulations in New Zealand?

Enware's emergency systems have been independently tested and certified compliant to Australian Standard AS4775 sections 5.1 to 6.3 as well as ANSI Z358.1.

What is Vertech™ Technology?

This technology has been designed to create a Zero Velocity point. The reduced water velocity is gentle and effective, helping allow a greater amount of time in the flushing zone, which is important especially when cleansing the sensitive eyeballs from hazardous materials.

How do I install a Safety Shower?

Installation of Safety Showers, Eye and Eye/Face Wash Units showers should be in accordance with AS/NZS4775-2007 or ANSI Standard Z358.1-2009 - whichever is applicable to the installation.

Where should I put a Safety Shower?

Emergency Safety Showers and Eye/Face Wash Units should be available for immediate use. It shall take no longer than 10 seconds for an individual to reach the nearest facility. Factors that influence the location of emergency facilities include workplace lighting, obstructions to the path of travel and the work environment.

It should be noted that some situations may warrant the placement of equipment significantly closer to the hazard. In these situations, such as exposure to highly corrosive chemicals, the proper distances should be selected based on the advice from appropriate consultants. For situations such as exposure to strong acids or alkalis, due consideration needs to be given to possible reaction between the flushing fluid and the chemical if the flushing fluid enters a bulk container of the chemical.

What other accessories are available?

- [Emergency Shower and Eye Wash Location Sign](#)
- [Emergency Eye Wash Location Sign](#)
- [Eye Wash Anti-Bacteria Water Preservative](#)
- [Anti-freeze Valve](#)
- [Anti-Static Shower Tester](#)

Do Eyewash solutions expire?

The 1L Eye Wash bottles and Pocket Eye Wash solution have a 3-year shelf-life from time of manufacture.

What workplaces need a Safety Shower or Eye/Face Wash Unit?

Any workplace that uses hazardous substances that pose a significant risk to the health and safety of their workers should have a Safety Shower or Eye/Face Wash Unit available on site.

This may include, but is not limited to:

- Manufacturing plants
- Aviation sector
- Workplaces that transport for store dangerous goods
- Schools, universities, public swimming pools - areas that are not normally deemed high risk but have the potential to cause issues due to the range of chemicals they may store
- Hospitals, medical clinics and laboratories

Speed is critical in a first aid response to a hazardous substance injury. Any delay in treatment could cause serious or permanent injury.

Drain Protection - An Overview

What is Drain Protection?

Drain protection is a commonly used term for methods used to prevent hazardous substances getting into the stormwater system.

Why do I need to protect my drain?

Most of us would probably have no idea the complexity of the drainage systems below us. However, in most urban areas, run-off from the drains we work around, eventually flows into rivers, lakes or into the sea.

In most areas of New Zealand, this run-off isn't treated before it is discharged into these environments. Therefore, any hazardous substances that go down the stormwater drains at our worksites, could quickly cause serious harm to fish, animals, plant, and birdlife. Even small spills can have a wide and devastating impact.

Using effective drain protection will prevent contaminants from causing this level of harm and keep them within your area of control.

Are there different types of drain protection?

Drain protection comes in two forms: either as a filtration device that captures contaminants while allowing clean water to pass through, or in the form of a complete seal that prevents all liquids from passing through.

Filtration Drain Warden

A very simple yet effective measure for preventing silt run-off and rubbish from entering the storm water system. Leave inserted as a short term collection device. Very easy to fit - just cut to suit your drain size. Easy to service.

Storm Sentinel

The adjustable catch basin. A self-supporting unit that sits out of sight below your drain grate, the Storm Sentinel is one of the most effective ways of preventing sediment from entering the storm water system. The oil absorbent media inside ensures that small hydrocarbons spills are captured on the way through also.

Complete Seals Spill Berm

Fast protection for when a spill is headed right for your drain - just place it in front of the spill, to securely contain the liquid. Ideal for applications such as spill response, temporary secondary containment and sealing of doorways during wash down.

Drain Protector - Nitrile

Economical drain protection made easy. A valuable addition to any Spill Kit, this cover has great resistance to oils, petroleum's, and mild acids

Drain Protector - Polyurethane

Ultimate protection, reusable time and time again. A solid but flexible material that gives you an unbeatable seal against the harshest chemicals. Reusable, reversible and environmentally safe.

Drain Protector Storage Case

Keep your drain protector visible, accessible and clean. Clearly labelled and constructed from UV resistant PVC. Note these are specifically for the Polyurethan Drain Protector seals.

Which workplaces need drain protection?

Any worksite that stores or uses hazardous substances, and have drains that are exposed to these substances, and aren't protected by an existing filtration or trade waste system.

Choosing A Drain Protector

Most of us would probably have no idea the complexity of the drainage systems below us. However, in most urban areas, run-off from the drains we work around, eventually flows into rivers, lakes or into the sea.

Drain protection is a commonly used term for methods used to prevent hazardous substances getting into the stormwater system.

The table below breaks down the different types of Drain Protectors available from Hazero.

Filtration: device that captures contaminants while allowing clean water to pass through

Hazero Product	Made of	Size	Reusable?
Controlco Drain Warden 22-1009	Tough geo-textile	600 x 1,200 x 1,200mm (h,w,d)	Yes, for a limited amount of time.
Storm Sentinel Round: 22-1010 Square: 22-1011	Tough geo-textile	Round: Fits round drains from 685mm up to 740mm Square: Fits rectangular drains from 406 x 580mm up to 711 x 914mm	Yes, for a limited amount of time.



Complete Seal: prevents all liquids from passing through.

Hazero Product	Made of	Size	Reusable?
Spill Berm 22-1007	Polyurethane	One - a 3m length, but you can easily join multiple lengths together to form a longer barrier.	Yes, it can be washed and if placed back into its protective packaging, can be stored ready for use again.
Drain Protector - Nitrile Small: 22-1012 Large: 22-1013	Nitrile	Small: 600 x 600mm Large: 1,000 x 1,200mm	Yes, as long as they remain flexible and are kept clean.
Drain Protector - Polyurethane Small: 22-1000 Large: 22-1001	Polyurethane	Small: 600 x 600mm Large: 900 x 900mm	Yes, it can be washed and if placed back into its protective packaging, can be stored ready for use again.





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