

Staying Safe When Storing Flammable Liquids in The Workplace

Risks of flammable liquids

In its broadest sense, the risk of fire is something that nearly every human being on earth is exposed to every day. This is particularly true in a business or industrial setting, when we increasingly work with flammable liquids, or substances that will liquefy in the event of a fire. The risks of flammable liquids can be high and there are certain regulations you must follow when storing flammable liquids.

Very few businesses are exempt from the risks of working with Class 3 flammable liquids. Whether you are in manufacturing, food production or warehousing, transport, agriculture or automotive repair, there is a high chance that handling and storing those substances correctly is of concern to you.



Health and Safety at Work

The new Health and Safety at Work (Hazardous Substances) Regulations (2017) were released on 1st December 2017. Finding the correct way to store flammable liquids within this 580-page act can seem quite daunting, below we've broken down storage for the majority of situations.

If you are storing flammable liquids inside, housing these within an approved storage cabinet will not only help you meet these latest requirements, but substantially reduce the risk of fire within your business.

What is an approved storage cabinet?

Flammable storage cabinets serve a number of key purposes.

Heat resistant

They provide a heat-resistant enclosure of flammable liquids, preventing or containing the destructive effects a fire might ordinarily have, on both your staff and your business operation.

Compact size

They are relatively compact which means a cabinet can often be situated in close proximity to where the liquids are used, creating numerous efficiencies compared to centralised storage.

Secure storage

They can also help clean up untidy storage areas, allowing you to secure and isolate flammable liquids from those that are harmless or non-compatible – or from people that shouldn't have access to them.

Storage requirements

It is important to note that flammable liquids cannot be stored in any old cabinet and there are a number of requirements stated in the aforementioned act. These requirements are outlined on page 188, which are summarised below:

- Each package (within) does not contain more than 20 L
- The aggregate quantities of all packages of Class 3.1A, 3.1B or 3.1C held in the cabinet does not exceed 250 L
- The cabinet is constructed and installed in accordance with sections 4.9.2, 4.9.5 and 4.9.7 of AS 1940-2004



AS 1940-2017 is the standard that governs the “Storage and handling of flammable and combustible liquids”, which states the cabinet construction requirements and the key points are summarised as follows:

- The walls, floor, door and roof shall be double-walled sheet steel
- The inner base shall form a liquid-tight compound that is at least 150mm deep
- Cabinet doors shall be self-closing, close-fitting and latched at 2 or more points
- Any shelves shall be perforated to permit free air movement



Hazero Flammable Cabinet - 250L

Does a Hazero Flammable Cabinet need to be earthed?

A question we are frequently asked is, does my Hazero Flammable Cabinet or Hazero Gas Cylinder Store need to be earthed? The short answer is no – earthing is not normally required.

Earthing refers to letting electricity ‘escape’ from a cabinet if it becomes live. To do this the cabinet would need to be connected to the ground, this would protect the cabinet from electric shocks and discharges. As it is unlikely a Hazero Flammable Cabinet would be connected to an electrical circuit (and therefore is unlikely to be ‘live’), earthing is not normally required.

Bonding is the term used when connecting metallic

items not designed to carry electricity. As a storage cabinet, or cage, is unlikely to make contact with a piece of metal with another potential and thus become ‘live’ (from the difference in potential) – bonding is not normally required.

It should be noted that under regulations 10.11 10.11(2), 10.13(6), 10.17(5) and 10.19(5) of the HS Regulations, any permanently fixed containers must be earthed and bonded – above threshold quantities.

For further information please refer to the [WorkSafe website](#).

Choosing the right sized cabinet

Flammable storage cabinets come in a number of sizes and capacities, from 30 L and upwards. Larger quantities of liquid may require a location certificate but either way, an approved storage cabinet is often the fastest and most economical way to safely and compliantly store your flammable liquids.

If you have flammable liquids on site and need help storing these – the team at Hazero can help. With our wide range of Flammable Cabinets from 30L to 350L there is guaranteed to be a cabinet to help you create a safer working environment.

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.

View our full range of Hazero Flammable Cabinets [here](#).

Need help creating a safer working environment?

Contact our team today on 0800 688 844 or email us at help@hazero.co.nz. Our team are also available for on-site assessments across New Zealand, click [here](#) to request a site visit.

Content above falls under the Hazero Disclaimer, for more information click [here](#).