

Types of fire extinguisher in Australia – all you need to know (February 02, 2018)

There are 5 main fire extinguisher types in Australia – [Water](#), [Foam](#), [Dry Powder](#), [CO2](#) and [Wet Chemical](#). You should have the right types of [fire extinguisher](#) for your house or business premises, or you may not meet current regulations.

The various types of fire extinguisher put out fires started with different types of fuel – these are called ‘classes’ of fire. The fire risk from the different classes of fire in your home or your business premises will determine which fire extinguisher types you need.

You will also need to make sure that you have the right size and weight of fire extinguisher as well as the right kind.

Whilst there are 5 main types of fire extinguisher, there are different versions of Dry Powder extinguishers, meaning there are a total of 8 fire extinguisher types to choose from. The 6 types of fire extinguisher are:

- [Water](#)
- [Foam](#)
- [Dry Powder](#) – Standard
- [Dry Powder – High performance](#)
- [Carbon Dioxide \(‘CO2’\)](#)
- [Wet Chemical](#)

There is no one extinguisher type which works on all classes of fire.

Below is a summary of the classes of fire, and a quick reference chart showing which types of extinguisher should be used on each. We then provide a detailed explanation of each type of fire extinguisher below.

The classes of fire

There are six classes of fire: Class A, Class B, Class C, Class D, ‘Electrical’, and Class F.

- **Class A fires – combustible materials:** caused by flammable solids, such as wood, paper, and fabric
- **Class B fires – flammable liquids:** such as petrol, turpentine or paint
- **Class C fires – flammable gases:** like hydrogen, butane or methane
- **Class D fires – combustible metals:** chemicals such as magnesium, aluminium or potassium
- **Electrical fires – electrical equipment:** once the electrical item is removed, the fire changes class
- **Class F fires – cooking oils:** typically a chip-pan fire

Type Extinguisher	Fire						Comments
	CLASS A Combustible materials (e.g. paper & wood)	CLASS B Flammable liquids (e.g. paint & petrol)	CLASS C Flammable gases (e.g. butane and methane)	CLASS D Flammable metals (e.g. lithium & potassium)	Electrical Electrical equipment (e.g. computers & generators)	CLASS F Deep fat fryers (e.g. chip pans)	
Water	✓	✗	✗	✗	✗	✗	Do not use on liquid or electric fires
Foam	✓	✓	✗	✗	✗	✗	Not suited to domestic use
Dry Powder	✓	✓	✓	✓	✓	✗	Can be used safely up to 1000 volts
CO2	✗	✓	✗	✗	✓	✗	Safe on both high and low voltage
Wet Chemical	✓	✗	✗	✗	✗	✓	Use on extremely high temperatures

Water and Foam

Water and Foam fire extinguishers extinguish the fire by taking away the **heat** element of the fire triangle. Foam agents also separate the **oxygen** element from the other elements. Water extinguishers are for Class A fires only - they should not be used on Class B or C fires. The discharge stream could spread the flammable liquid in a Class B fire or could create a shock hazard on a Class C fire.

Carbon Dioxide

Carbon Dioxide fire extinguishers extinguish fire by taking away the **oxygen** element of the fire triangle and also be removing the **heat** with a very cold discharge. Carbon dioxide can be used on Class B & C fires. They are usually ineffective on Class A fires.

Dry Chemical

Dry Chemical fire extinguishers extinguish the fire primarily by interrupting the **chemical reaction** of the fire triangle. Today's most widely used type of fire extinguisher is the multipurpose dry chemical that is effective on Class A, B, and C fires. This agent also works by creating a barrier between the **oxygen** element and the **fuel** element on Class A fires. Ordinary dry chemical is for Class B & C fires only. It is important to use the correct extinguisher for the type of fuel! Using the incorrect agent can allow the fire to re-ignite after apparently being extinguished successfully.

Wet Chemical

Wet Chemical is a new agent that extinguishes the fire by removing the heat of the fire triangle and prevents re-ignition by creating a barrier between the **oxygen** and **fuel** elements. Wet chemical of Class K extinguishers were developed for modern, high efficiency deep fat fryers in commercial cooking operations. Some may also be used on Class A fires in commercial kitchens.

Dry Powder

Dry Powder extinguishers are similar to dry chemical except that they extinguish the fire by separating the **fuel** from the **oxygen** element or by removing the **heat** element of the fire triangle. However, dry powder extinguishers are for Class D or combustible metal fires, only. They are ineffective on all other classes of fires.

<https://www.fireextinguisheronline.com.au/blog/post/types-of-fire-extinguisher-in-australia-all-you-need-to-know/>

What are the Types of Fire Extinguishers and What are Their Purposes?

Class A: Class A **Fire Extinguishers** are used for fires that involve paper products, fabrics of textiles, wood-based products, plastics, and rubber-based products. The type of class A extinguishers that fall into this category are Powder ABE, water, foam and wet chemicals

Class B: Class B extinguishers are used to put out fires that started due to flammable or combustible liquids. In the work environment, this could include chemical-based cleaning products, electrical contact cleaner, and lubricants used for equipment. The class B extinguishes that address these materials include Powder ABE and BE, and foam.

Class C: Class C extinguishers are used for fires started by flammable gases. Circumstances in which these gases are used to operate machinery could lead to a fire or probable explosion. These extinguishers could put out the fire before pressure builds and produces further events. The type of class C extinguishers used for these fires are Powder ABE and BE.

Class D: Combustible Metals – Often used in Laboratories

Class E: Class E extinguishers stop electrical fires. This includes events related to electrical equipment that requires electricity or circuit to operate. The class E extinguishers used for electrical-based fires include Powder ABE and BE, carbon dioxide, and vaporizing liquid.

Class F: Class F extinguishers manage fires caused by cooking oils and fat based products. They address fires that could occur in a kitchen setting of the workplace. Class F extinguishers include Powder BE and wet chemical.

<http://www.fcnational.com.au/fire-extinguishers-australia/>