

Lithium-ion batteries & fire extinguishers



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There is currently no Australian Standard for testing a Fire Extinguisher's success in combating a fire involving Lithium-ion Batteries.

CFA does not promote, endorse or engage in the sale, use or servicing of fire extinguishers which purport to be effective on lithium-ion battery fires.

Fires involving Lithium-ion Batteries are increasing with more widespread applications and greater numbers of adoption from consumers.

These fires present new hazards and dangers, and can behave differently to traditional fires, including producing jet-like flames and violent fire behaviour.

Fire extinguishers and lithium-ion batteries

Currently there is no Australian Standard for testing and approving Lithium-ion fire extinguishers. However, there are products entering the market that claim to address Lithium-ion battery fires. Some of these products may have been awarded an Australian Standard approval for a general firefighting extinguisher, not for Lithium-ion fires.

CFA will not sell or service fire extinguishers that are marked for Lithium-ion fires, until there is a recognised Australian Standards testing and accreditation process for these fire extinguishers.

If the device or battery starts to smoke or emit flames

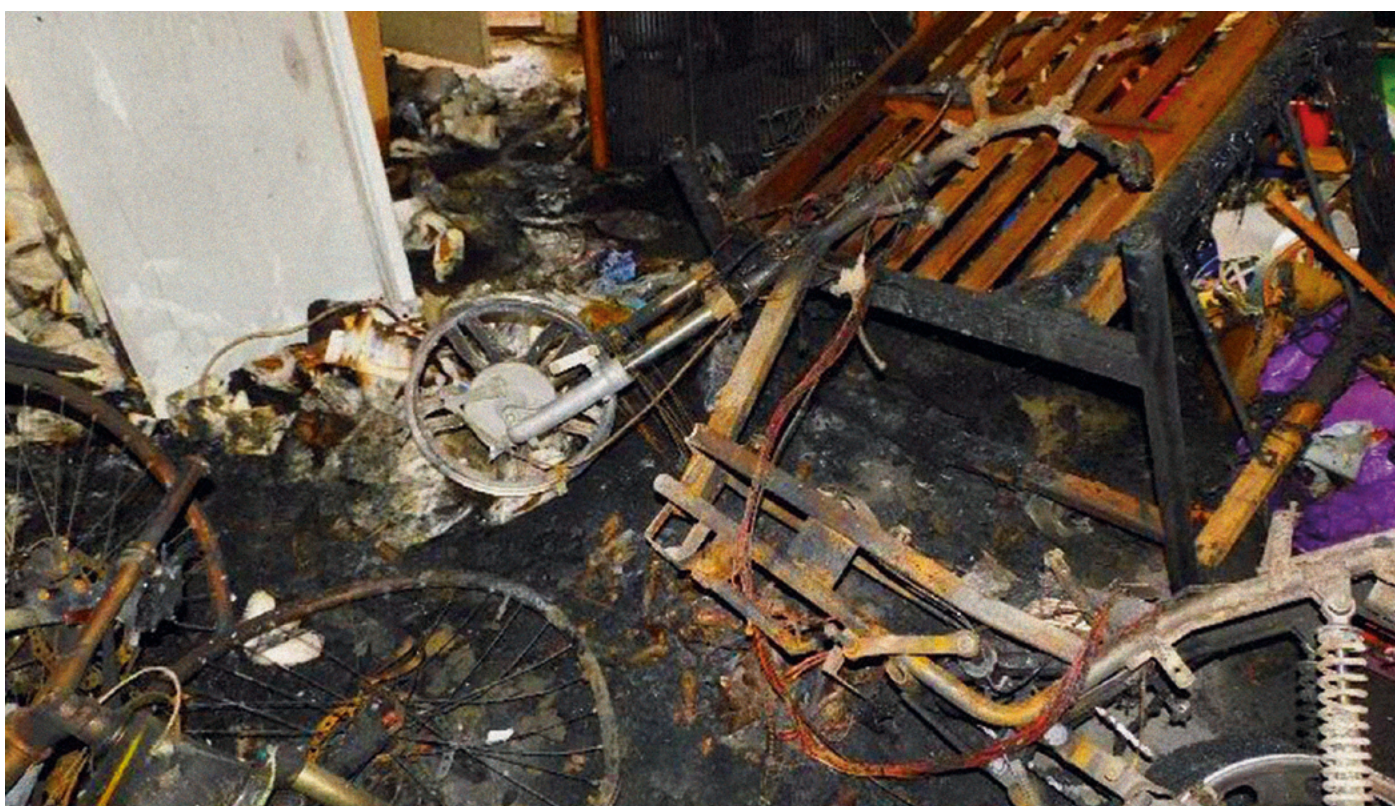
- Do not touch the device.
- Evacuate the area and close doors if safe to do so to slow the spread of fire. Ensure no one goes back inside the building for any reason. The vented battery gases, vapour and smoke are highly toxic and flammable and must not be inhaled.
- Call **Triple Zero (000)** and advise it is a Lithium-ion battery incident. Wait in a safe location outside for firefighters to arrive.
- If anyone has been exposed to spilled electrolyte, flying debris, smoke or vapours, or flames, seek urgent medical assistance. Burns should be immediately treated with cool running water for 20 minutes. Burns larger than a 20-cent piece require emergency care. Treat with cool running water immediately, call Triple Zero (000), and follow the advice of the operator.

Some reasons lithium-ion batteries catch fire:

- Are incorrectly charged resulting in overcharging and/or overheating. This can occur where a charging cable that was not designed for the device or battery is used.
- Have been damaged in any way (i.e. impact, puncture, overheating etc).
- Have been exposed to water for a duration long enough to cause corrosion within the battery.

Precautions when charging

- Use only the manufacturer-supplied charger.
- Charge when people are home.
- Place the batteries away from flammable items, preferably in a well ventilated area like a covered garage or outdoor area, ideally outside.
- Monitor the batteries periodically for changes in shape or temperature.



Further information



Charging & Battery
Safety: [cfa.vic.gov.
au/batterysafety](https://cfa.vic.gov.au/batterysafety)



CSIRO Advisory
Note 004



FPAA Technical
Advisory Note 09

If you have any questions or need support, please contact CFA's Fire Equipment Maintenance (FEM) Hotline on **1300 363 661**