

Lithium-ion batteries

In any case of emergency contact 000 immediately. For more information on what to do in case of fire or explosion contact your state or territory fire department.

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About lithium-ion batteries

Most laptops, mobile phones, e-bikes, e-scooters, power banks and power tools contain lithium-ion batteries.

Lithium-ion batteries are a type of rechargeable battery.

Lithium-ion batteries are the most common batteries used in rechargeable devices. This is due to their:

- small size
- high energy density
- better power capability than other battery types.



Lithium-ion batteries are more dangerous than traditional batteries because they use different chemicals and internal processes.

Risks from lithium-ion battery use

Lithium-ion batteries can be highly flammable.

The ACCC saw a 92% increase in reported lithium-ion battery incidents including swelling, overheating and fires in 2022 compared to 2020.



Lithium-ion batteries have caused fires and explosions leading to property damage and serious injuries. One Australian fatality was reportedly caused by a lithium-ion battery fire.

Fires have occurred in homes, offices, and waste/recycling trucks and facilities. If a lithium-ion battery is not correctly manufactured, handled, stored or disposed of, it can catch fire, explode or vent toxic gas.

A lithium-ion battery fire can be very difficult to extinguish as it may reignite and depending on the battery size, sometimes takes days to burn.

How to safely use lithium-ion batteries

It is important to always follow the manufacturer's instructions.

Ensure the charger you are using is suitable for the battery in the product being charged.

We encourage consumers to [report lithium-ion battery related incidents](#) or injuries associated with consumer products to the ACCC.

When buying products

Always:

- buy products that contain lithium-ion batteries from a reputable supplier. Check if the product contains a lithium-ion battery by looking for labels such as "lithium ion", "Li-ion", "Li-po", "lithium-polymer" or some other variation of "Li"
- follow the manufacturer's instructions.

When handling and storing a lithium-ion battery product

Always:

- store lithium-ion batteries and products in cool, dry places and out of direct sunlight
- allow the lithium-ion battery to cool after use and before recharging
- purchase replacement batteries from the original supplier or a reputable supplier where possible
- keep lithium-ion batteries separate from each other when removed from products.

Never:

- use lithium-ion batteries, products or chargers that are showing signs of failure such as:
 - denting, crushing or other damage
 - overheating
 - swelling
 - leaking or
 - venting gas.
- leave lithium-ion batteries or products in hot places such as in parked vehicles
- modify a lithium-ion battery or use it in the incorrect product
- repurpose batteries designed for use in one product to use in another.

When charging a lithium-ion battery

Always:

- monitor charging times of devices and disconnect products from chargers once they are fully charged. Consider setting timers as a reminder to unplug devices
- charge lithium-ion batteries or products on non-combustible surfaces such as concrete, ceramic, or steel.

Never:

- charge lithium-ion batteries or products on combustible materials such as beds, sofas or carpet
- use damaged chargers or charging cables.

When disposing of a lithium-ion battery product

Always:

- check safe disposal options at [Recycle Mate](#) or [B-Cycle](#) to safely dispose of lithium-ion batteries or products.

Never:

- dispose of lithium-ion batteries or products in household rubbish, recycling bins or kerbside hard waste collections. This can cause fires in bins, garbage trucks and waste facilities.

ACCC report - lithium-ion batteries and consumer product safety

The [ACCC has released a report](#) which examines:

- the current lithium-ion battery market and regulatory landscape
- the risks and hazards in the lithium-ion battery lifecycle
- available incident data.

The report recommendations aim to improve lithium-ion battery safety outcomes by:

- educating consumers about the safety risks associated with Li-ion batteries and safe use strategies
- advocating for changes to the electrical safety regulatory framework
- expanding data collection about incidents attributed to lithium-ion batteries
- development of requirements for storage, transportation, labelling and testing of Li-ion batteries
- regulator engagement with online platforms to address the sale of unsafe Li-ion battery products,
- development of infrastructure, policies and regulations to allow the safe recycling of Li-ion batteries

As part of our report, the ACCC received expert views from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on the product safety risks and mitigation measures for lithium-ion batteries and was informed by [stakeholder consultation](#).

[Read the CSIRO's report](#)

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For further information

For further information about lithium-ion battery safety contact your state fire department.

[ACT Emergency Services Agency](#)

[Department of Fire and Emergency Services WA](#)

[Fire and Rescue NSW](#)

[Fire Rescue Victoria](#)

[Northern Territory Fire and Rescue Services](#)

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To keep up to date on product safety, [subscribe to the PSA newsletter](#).

Authorised by the Australian Government, Canberra.

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