

Lithium Battery Safety.

Lithium, or li-ion' batteries are rechargeable batteries that can store more energy in less space than traditional batteries. They are also more lightweight and compact than other batteries.

Lithium batteries:

- Power most household rechargeable devices like mobile phones, laptops, power tools, vacuum cleaners, children's toys, e-scooters and e-bikes
- come in a variety of shapes including cylindrical, flat and rectangular
- will have some form of marking on the device containing any of the following words: 'lithium-ion', 'Li-ion', 'li-po', 'lithium-polymer' or 'Li+'
- should always be charged according to the manufacturer's instructions and should never be used if they are damaged or defective.

What are the risks of lithium batteries?

If used incorrectly, lithium batteries can be dangerous. Make sure you know the risks of lithium batteries. For example:

- When damaged, exposed to heat sources or charged inappropriately, batteries could catch fire or, in extreme cases, explode.
- Continuing to charge after the battery is full can increase the risk of the battery catching fire.
- When overheated or on fire, lithium batteries can create a highly toxic vapour cloud.
- These fires are hard to put out with water or a fire extinguisher. Re-ignition is likely to happen – even if the fire seems to be extinguished.

How to charge safely

Do:

- ☒ Only use battery chargers that are specifically recommended by the manufacturer as being suitable for the battery or device.
- ☒ Only use chargers with the correct voltage and current for the device.
- ☒ Check that chargers bear the Regulatory Compliance Mark, to show they have met the relevant Australian Standards under The Regulatory Compliance Mark (RCM) (General) – EESS.
- ☒ Charge in a well-ventilated area such as a garage or car port.
- ☒ Allow time for batteries to cool down after use and before recharging.

Don't:

- ☒ Avoid leaving batteries or devices unattended while charging and once the battery is fully charged, disconnect it from the charger.
- ☒ Devices and equipment containing lithium batteries, such as power tools and e-scooters should not be charged in living areas.
- ☒ Do not store batteries or devices in areas where they may be exposed to heat or moisture.

- ❌ Do not charge batteries or devices on bedding, lounges or in direct sunlight or other sources of heat.
- ❌ Do not leave batteries or devices in parked vehicles where they can quickly heat up.
- ❌ Never charge a battery or device that is showing signs of damage or is hot.

How do I dispose of damaged batteries?

- Lithium batteries with any sign of damage, that have had water or liquid ingress, or that have been exposed to salt-water should be treated as damaged and highly dangerous. [Contact your local council urgently to ask how these batteries should be disposed of in your local area.](#)
- Never dispose of lithium batteries or devices (either damaged or undamaged) in general household, recycling, public or industrial bins. Note: damaged lithium batteries can cause fires.
- Do not put discarded lithium batteries or devices in piles.
- Wear personal protective clothing and equipment when handling damaged batteries or devices.
- Be aware of the risks related to damaged lithium batteries, including electric shock, secondary fire risks, and exposure to toxic, corrosive, and flammable vapours and substances.
- Fire or smoke-damaged batteries should be kept outside in a well-ventilated area and stored 10m from any other dangerous goods or materials that are combustible or flammable.
- Place leaking or damaged (but not overheated or off-gassing) batteries in a clear plastic bag or container.

What to do if a fire or emergency occurs

If your lithium rechargeable device is on fire, or smoke is coming from it:

- Call Triple Zero (000) immediately and report the incident.
- Don't touch a damaged battery or device – severe burns could occur.
- Raise the alert and ensure everyone evacuates to a safe area.
- Don't breathe the air around the battery or device – it will likely contain toxic vapours.

If your lithium rechargeable device is creating an unusual smell or sound, developing heat, changing shape or behaving abnormally, and it is safe to do so:

- Disconnect the device from the power supply.
- Move the device outside away from any other combustible items.
- Submerge the battery in a bucket filled with cool water to prevent ignition or further ignitions, until emergency assistance arrives.

For more information visit the Qld Fire and Emergency Services website – www.qfes.qld.gov.au.