

LITHIUM-ION BATTERIES



In today's technology driven world, lithium-ion batteries are powering electric vehicles, cell phones, e-bikes, laptops, toys, smoke alarms and power tools. These batteries can be dangerous if they overheat, and can cause a fire or explosion. Keep yourself and your family safe by following these safety tips.



According to the Data Bridge Market Research, the global lithium-ion battery market was valued at 6.70 billion in 2021 and is expected to reach 26.28 billion by 2029.



**Orange County
Fire Authority**

(714) 573-6200
ocfa.org



Lithium-Ion Battery Fires:

- Emit toxic gasses within seconds
- Burn hotter and faster than others
- Can't be smothered like other fires
- Can cause explosions within seconds
- Can reignite up to 21 days later!

Safety Tips

- Purchase batteries that are listed by a Nationally Recognized Testing Lab (NRTL)
- Know the manufacturer instructions and safety information for use, storage, charging and maintenance
- Never overload your outlet when charging any device with a lithium-ion battery
- Never place the batteries in direct sunlight or a hot vehicle
- Store batteries in a cool, dry location

Charging and Disposal

- Charge the device properly and only with the cords that came with the device
- Unplug the device once it is fully charged
- Do not charge batteries when the environment is below freezing (32°F) or too hot (130°F)
- Never charge the device under a pillow, on your bed or on a couch.
- Keep lithium-ion batteries away from combustible materials when charging.
- Never throw lithium-ion batteries in the trash
- Contact your local recycling center or waste management department for proper disposal
- Do not put discarded batteries together in a container or pile

Warning Signs

- Unusual odor
- Change in color
- Too hot to the touch
- Change in shape
- Not keeping a charge
- Smoking or sparking when plugging in
- Unusual Noises (popping, hissing, buzzing)
- Leaking of liquid

If You Have a Fire From a Lithium-Ion Battery

- Leave the area immediately as the batteries emit toxic gasses and burn extremely hot, with explosions occurring in seconds
- Call 9-1-1
- DO NOT try to fight or extinguish the fire