



TOOLBOX TALK



LITHIUM BATTERY SAFETY

Lithium batteries are generally safe — but only when used, stored, and charged correctly. These batteries are found in many of the devices we use daily, from power tools and phones to radios and laptops. However, because they store a high amount of energy in a small space, any damage, misuse, or manufacturing defect can cause them to become unstable.



1. What are three warning signs that a lithium battery may be damaged or failing?
2. Why is it dangerous to charge a lithium battery below freezing temperatures?
3. What type of fire extinguisher should you use if a lithium battery catches fire?

HAZARDS TO WATCH FOR:



PHYSICAL DAMAGE

Dropping, crushing, or puncturing batteries can cause failure.



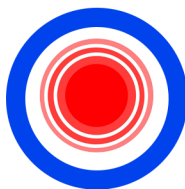
HEAT

High temps (above 38°C / 100°F) or charging below freezing (0°C / 32°F) increases risk.



IMPROPER CHARGING

Using the wrong charger or not following instructions can damage the battery.



THERMAL RUNAWAY

Heat from one cell failure can spread and cause fire or explosion.

IN CASE OF EMERGENCY

Stop using it
immediately

Move it away
from flammable
materials

Evacuate
the area
if necessary

Use the
correct fire
extinguisher

Do NOT
use water

Report the
incident



CO₂, dry chemical (ABC), or Class D (for lithium-metal)

especially on lithium-metal fires.

to your supervisor and follow site emergency protocols

WARNING SIGNS



Bulging or cracked batteries



Hissing, leaking, or smoking



Unusual heat while charging or in use

SAFE PRACTICES

- Use certified batteries and chargers
- Follow manufacturer's instructions
- Remove devices from the charger once full
- Store in a cool, dry place — not in direct sun or near flammables
- Inspect batteries before use
- Dispose of damaged batteries properly



All attendees should sign the register to confirm their attendance.



CAIRNMEAD

REGISTER

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