



THE RECHARGEABLE SOCIETY:

How We Live & Work

Rechargeable batteries are now embedded in how we live, work, and connect. From smartphones and laptops to wearables and smart home devices, they power the technologies that shape our daily routines.

As these devices become more integrated into everyday life including in homes, workplaces, and on our bodies, reliance on lithium-ion batteries continues to grow.

Where Risk Emerges

Everyday use can introduce hidden risks

As more rechargeable devices enter homes and workplaces, many safety incidents trace back to common, preventable risks often linked to thermal runaway.

Thermal Runaway:

An uncontrolled, self-heating state in a lithium-ion battery that can lead to:



Fire



Off gassing



Smoke



Explosion

It can be triggered by overcharging, damage, or substandard manufacturing.



60%

of Americans are unaware that lithium-ion batteries power many of the products they rely on.

Common Risk Factors

How everyday devices can become safety hazards



Counterfeit Products

- May carry fake safety markings and use unsafe materials
- More likely to fail and create hazards
- 29% of consumers report knowingly purchasing counterfeit products

What to do:

Buy batteries and chargers from reputable sellers and avoid suspicious pricing or packaging



Uncertified or Substandard Devices

- Skip critical safety testing
- May carry a higher risk of overheating, malfunction, or fire

What to do:

Look for clear, verifiable safety certifications.



Warning signs of damaged batteries

- Swelling or bulging
- Smoking
- Rising temperature
- Leaking

What to do:

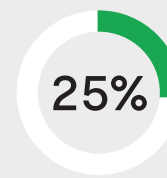
Follow safe-use practices and avoid overheating, overcharging, or physical damage.

Building Safer Everyday Environments

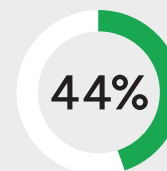
Standards and informed choices reduce risk

Safety standards play a critical role in reducing battery-related risks while supporting innovation and consumer trust.

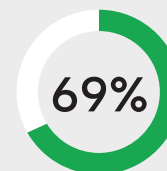
Products tested to recognized standards are evaluated under real-world and extreme conditions, helping prevent failures before they occur.



of consumers check for safety certification



of companies report competitive and innovation benefits from certification



of consumers say certifications increase trust in the products they use

By choosing products certified to safety standards and following safe-use practices, consumers and organizations can help reduce risk while continuing to benefit from the technologies that power modern life.

Related Resources

From Implicit Trust to Strategic Advantage:
The Role of Standards in Digital Health



Enhancing Consumer Trust and Innovation
in Smart Homes Through Standards



The Hidden Dangers of Counterfeit Batteries
(And What You Can Do)



About UL Standards & Engagement

UL Standards & Engagement is a nonprofit safety organization that convenes experts and leaders across the world to deliver impact through standards, education, and advocacy. Since 1903, we have developed nearly 1,700 standards and guidance documents for products ranging from fire doors to autonomous vehicles. ULSE enables innovation and grows trust by convening experts and informing policymakers and regulators as we work toward a safer, more secure and sustainable future. Visit **ULSE.org** for more information.

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