

Batteries: Their Applications and Safety Risks



Battery types

Button/Coin Cell Batteries

- Circular batteries.
- Used in small products like toys, watches, scales, hearing aids, and other home products.

Polymer/Pouch Cell Batteries

- Thin, square cells with soft cases.
- Used in laptops and cell phones.

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Risks

Button or Coin batteries, when ingested, can cause serious burns to tissue.

Damage, electrical abuse, exposure to freezing or elevated temperatures and exposure to conductive surfaces can cause batteries to short circuit, overheat, smoke, expand (causing damage to the battery and associated product), burn, and explode.

Thermal runaway can result in smoke, a steady burn, a fireball, or ultimately an explosion.

Battery Purchasing Tips

Cheap or counterfeit batteries may not undergo the same quality control processes and have a higher likelihood of failing. Always buy from reputable manufacturers or suppliers.

When replacing batteries and chargers for an electronic device, ensure they are specifically designed and approved for use with the device, and they are purchased from the device's manufacturer, or a manufacturer authorized reseller.

Ensure lithium batteries, chargers, and associated equipment are tested in accordance with an appropriate test standard (e.g., UL 2054) and, where applicable, certified by a Nationally Recognized Testing Laboratory (NRTL), and are rated for their intended uses.