



Lithium Battery Safety

Lithium batteries have become the standard rechargeable energy storage devices. They are common to University operations and used in many research applications. Physical damage or over charging, however, can lead to fire or explosion. Here are a few safety tips when working with lithium batteries:

- Only purchase batteries from reputable manufacturers or suppliers.
- Store batteries away from combustible materials, conductive substances, and at room temperature. If possible store and charge them in a metal or flame resistant container.
- Remove batteries from devices for long-term storage.
- Do not over-charge or excessively discharge batteries.
- Only use chargers designed for the specific battery pack and its parameters, especially voltage.
- Remove batteries from chargers promptly after charging is complete. Do not use chargers for storage.
- Do not leave batteries unattended while charging.
- Take care not to damage the battery casing or connections.
- Before use, inspect batteries for signs of damage. Never use damaged or bulging batteries. These should be disposed of promptly.
- Lithium-ion batteries should be disposed of when they no longer hold a substantial charge.
- Before disposal, all lithium batteries must have their terminals covered with non-conductive tape to prevent unwanted discharge. Coin or button cells should be wrapped in non-conductive tape.
- Batteries cannot be thrown away with regular trash. Undamaged batteries can be dropped off at several locations across campus for recycling.
(<https://ehs.ucsc.edu/programs/waste-management/recycling-disposal/battery-bin-locations.html>)
- Damaged or bulging batteries must be segregated and tagged as hazardous waste. Contact hazwaste@ucsc.edu to report the damaged battery and to schedule a pick-up.

UCSC Battery Recycling Program (<https://ehs.ucsc.edu/programs/waste-management/recycling-disposal/batteries-how-to.html>)