



**LiTHIUM
BATTERY
SAFETY**



Did You Know? Lithium-ion batteries are a recycling hazard. Lithium-ion batteries are ubiquitous. They are in e-cigarettes, some greeting cards, mobile phones, laptops, power tools, TVs, and electric vehicles, but they can be dangerous in recycling and solid waste collection and processing. So, for the safety of our JBSA recycling personnel and the preservation of our recycling equipment, vehicles, and facilities, please be careful not to toss lithium-ion batteries into any recycling receptacle.

Once you decide to dispose of your lithium-ion batteries or electronic devices that contain lithium-ion batteries, **do not place them in a recycling receptacle or garbage can.** Instead, if you are a JBSA host or a JBSA tenant, you may turn in your lithium-ion batteries at one of the **JBSA Hazardous Waste facilities**. Note: JBSA tenants must provide their own unit's **Department of Defense Activity Address Code (DoDAAC)** when they turn in their batteries.

If you are an on-base housing resident or live off base and have household/personal lithium-ion batteries, contact the manufacturer of the device to inquire about their collection program or a nearby certified recycling provider or solid waste collection facility that can safely handle such hazardous materials.

HOW TO HANDLE LITHIUM-ION BATTERIES

DO'S



Purchase and use devices that are listed by a qualified testing lab.



Only used the battery and charging cord designed for the device.



Keep devices and batteries at room temperature.



Store batteries away from flammable objects.

DON'TS



Do not leave devices plugged in once fully charged.



Do not charge the device under your pillow, on your bed, or on a couch.



Do not charge devices at temperatures below 32°F or above 105°F.



Do not discard lithium-ion batteries in the trash.

FIRE PROTECTION SYSTEMS SAVE LIVES!

In addition to following the tips above, choosing to install and maintain fire and life safety systems can **save lives and protect property.**

Frequently Asked Questions

Why are lithium-ion batteries flammable?

Lithium-ion batteries store a lot of energy in a small amount of space. When that energy is released in an uncontrolled manner, it generates heat, which can turn certain internal battery components into flammable and toxic gases.

How do fires from lithium-ion batteries start?

Lithium-ion battery fires happen for a variety of reasons, such as physical damage (e.g., the battery is penetrated or crushed or exposed to water), electrical damage (e.g., overcharging or using charging equipment not designed for the battery), exposure to extreme temperatures, and product defects.

What are some unique dangers of lithium-ion battery fires?

Heat, smoke, the release of toxic gases, and the potential for explosions are the dangers associated with lithium-ion battery fires.

What are some safety tips for buying, charging, storing, and using lithium-ion batteries in devices like laptops, phones, tools, and more?

- Purchase batteries that are only listed by a nationally recognized testing lab and labeled accordingly.
- Stop charging a battery once it is full.
- Use charging equipment that is only compatible with your device. To be safe, use only the charging equipment that is supplied with your device.
- Stop using your device if the battery shows signs of damage, such as an unusual odor, excessive heat, popping sounds, swelling, or change in color.
- Have all repairs performed by a qualified professional.

Once the batteries catch fire and water is applied to them, does it make the fire worse because lithium in the presence of water creates combustible hydrogen?

Firefighters should use water to fight a lithium-ion battery fire. Water works just fine as a fire extinguishing medium since the lithium inside of these batteries are a lithium salt electrolyte and not pure lithium metal. Confusion on this topic stems from the fact that pure lithium (like what you see in the table of elements) is highly reactive with water, while lithium salts are non-reactive with water.

Frequently Asked Questions (according to <https://www.nfpa.org/education-and-research/home-fire-safety/lithium-ion-batteries>)

For more information on JBSA recycling contact

802CES.CEIE.Recycling@us.af.mil

- JBSA-Lackland / Chapman Training Annex - 2891 Carswell Ave. Building 7390 - (210) 671-4800
- JBSA-Randolph - 11157 Bone Road Building 1152 - (210) 889-1282
- JBSA-Fort Sam Houston / Camp Bullis - 1987 Stock Road Building 4203 - (210)221-4888

All Recycle Centers

Open: 7:30 to 3:30 weekdays, closed for lunch, 11:30 a.m. to 12:30 p.m.

Closed: Federal holidays and AETC Family Days