

Battery FAQ



Management:

Why is it important to recycle batteries correctly? They can NOT be recycled at home.

Batteries can NOT be recycled in your home recycling bin. They may only be recycled through special collection opportunities. Batteries are made from metals and minerals mined from the Earth using processes that are often damaging to the environment. When batteries are recycled, these materials can be captured and reused. This reduces the need for newly mined material. In addition, certain battery chemistries are dangerous in the waste and household recycling streams. Many contain material that is toxic to the Environment or may become a fire hazard in collection vehicles and waste processing facilities.

If it's important to recycle batteries, why CAN'T I put them in my curbside recycling bin?

The facilities that accept single stream curbside recycling are designed to sort specific containers (glass, plastic & metal) and paper products only. Batteries cannot be sorted in this process – and worse, they can cause dangerous conditions including fire and explosions.

Why is it important to know how to manage batteries?

Different batteries have different types of chemistry for storing and transferring energy. The chemicals and metals in different types of batteries can be very different in terms of human health risks, environmental risks, and value for recovery through recycling.

For more information on battery chemistry click [HERE](#).

Why is it bad to throw loose, rechargeable or lithium batteries into the trash or curbside recycle bin?

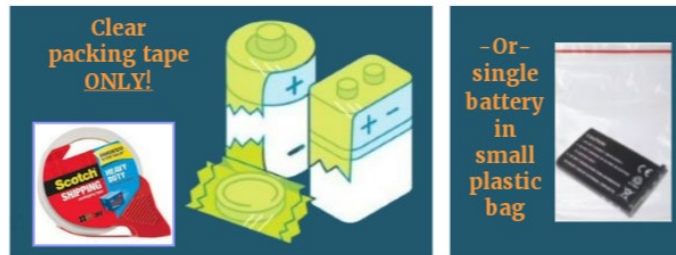
For most battery chemistries, the greatest concern is toxic material being landfilled or contaminating the recycling stream. For all types of lithium chemistry batteries, the concern is fires. Trash disposal and recycling are both quite violent processes. Collection trucks use powerful compactors and trash is further compacted at the landfill. Recyclables are tossed and tumbled through machines to sort them and ultimately compressed into bales. These processes can easily rupture a battery and cause a fire or explosion. Fires at waste and recycling facilities and in collection vehicles are dangerous for workers and the public. This can also drive up the costs of processing waste.

My item contains a battery, but it is not easily accessible. What do I do?

Many products contain embedded batteries, meaning that the manufacturer intentionally designed the power source to be inaccessible to consumers. Examples of these items are children's toys, light up shoes, singing cards, smoke detectors, electric toothbrushes, smart phones, and vapes. In this case, attempting to access the battery is not recommended. Some manufacturers offer take back programs for items containing embedded batteries. Check the manufacturer's website or call them for disposal directions. If no take-back or recycling program is available, these items should go into the garbage, NOT the recycle bin. Generally, embedded batteries are protected within the product and are less likely to become hazards in the waste system.

I have a large quantity of mixed batteries. I don't have the time or knowledge to sort them. What can I do?

Most facilities require residents to separate alkaline batteries from rechargeable batteries and will require you to properly protect battery terminals. This is done by covering battery terminals with clear packing tape or by placing batteries in very small individual clear plastic bags. If you are ever uncertain of a battery's chemistry, it's best to be cautious and protect the terminals using clear packing tape only.



An additional option is to contact a battery collection center that will accept mixed batteries and sort them for you. Please note, they often charge by the pound.

I've heard that alkaline batteries can be disposed of in regular trash, but my battery has a garbage tote symbol with an X through it. Why is that?

Yes = alkaline batteries can be thrown in your trash. The tote symbol with the X is associated with the European Union's Waste Electrical and Electronic Equipment (WEEE) Directive. U.S. and E.U. guidance differs regarding management of alkaline batteries.

What do I do with a swollen/damaged lithium-ion or lithium-polymer battery?

A swollen battery, or a battery with other obvious damage, should not be charged or used anymore. Batteries in this condition can pose a fire/explosion risk. Never try to “deflate” a swollen battery by puncturing it! The risk of fire can be reduced by burying the battery in a container filled with sand, cat litter, or soil, and placing it on a non-flammable surface away from all heat sources and flammable material. Then bring it to a proper facility as soon as possible.

Please see “Where do I bring batteries for proper recycling?” as well as the “Outreach and Assistance” text on the main web page for facility information.



Chemistry:

How do I tell what type of battery I have?

The first question to answer is whether the battery is rechargeable. With rechargeable batteries, it isn't critical to know which type you have because all rechargeable battery terminals should be protected, and the batteries recycled properly by taking them to a recycling program/drop-off. Please remember rechargeable batteries can NOT go into your home recycle or trash bin.

For more information on battery chemistry click [HERE](#).

Do alkaline batteries contain any hazardous substances?

No. The federal Mercury-Containing and Rechargeable Battery Management Act of 1996 outlawed the production of alkaline batteries with added mercury. Modern alkaline batteries do not contain hazardous materials.



Considerations and Dangers:

I've heard about devices with lithium batteries catching on fire. Is there anything I can do to decrease the risk of fire from one of these devices?

Yes! Battery Safety starts with smart purchasing and handling. Please refer to the “Responsible Purchasing, Use, and Home Management of Rechargeable Batteries” on the main website page for more information.

My lithium-ion battery is swollen. Is that dangerous?

Yes, but don't panic. A battery exposed to high temperatures, ruptured by a sharp object, or that appears swollen, is a hazard. A swollen battery, or a battery with other obvious damage, should not be charged or used anymore. Batteries in this condition can pose a fire/explosion risk. Never try to "deflate" a swollen battery by puncturing it!

To reduce the risk of fire, bury the battery in a sturdy container filled with sand, cat litter, or soil and place it on a non-flammable surface away from all heat sources and other flammable material. Then bring it to a proper facility as soon as possible. Mail-in damaged battery recycling kits are also available for sale through online vendors.

My alkaline batteries are corroded with white powder. Is that dangerous?

Battery corrosion warrants some caution with handling but is not acutely dangerous. The dry, whitish powder is potassium hydroxide. It is a skin, eye, and respiratory irritant. Mild corrosion can be removed from surfaces by wiping with a mild acid such as white vinegar or lemon juice.

I've heard that certain batteries are dangerous to small children and pets.

Which are those?

Button cell or coin cell batteries have a pleasing round shape and come in a variety of small sizes. Sometimes children will place button batteries in their mouths, ears, and noses. Pets may eat them or get one stuck in their nose while investigating. Never store loose batteries within reach of children or pets and know which devices at home contain button cells. If you believe a child or pet has a button cell battery stuck in any part of their body, call 911 or your emergency veterinarian immediately.

Why do some battery recyclers charge a fee to recycle batteries?

Materials in batteries, including various metals and alloys, plastic casings, paper labels, and micronutrient chemicals can be recycled into valuable new products. Fees often cover staff time to sort and package batteries safely for shipping. In addition, batteries are heavy to transport and the process of recycling, while important, is also expensive.