

Battery Recycling and You

Published by the City of Pittsburg
Environmental Affairs Division and
Local Enforcement Agency.

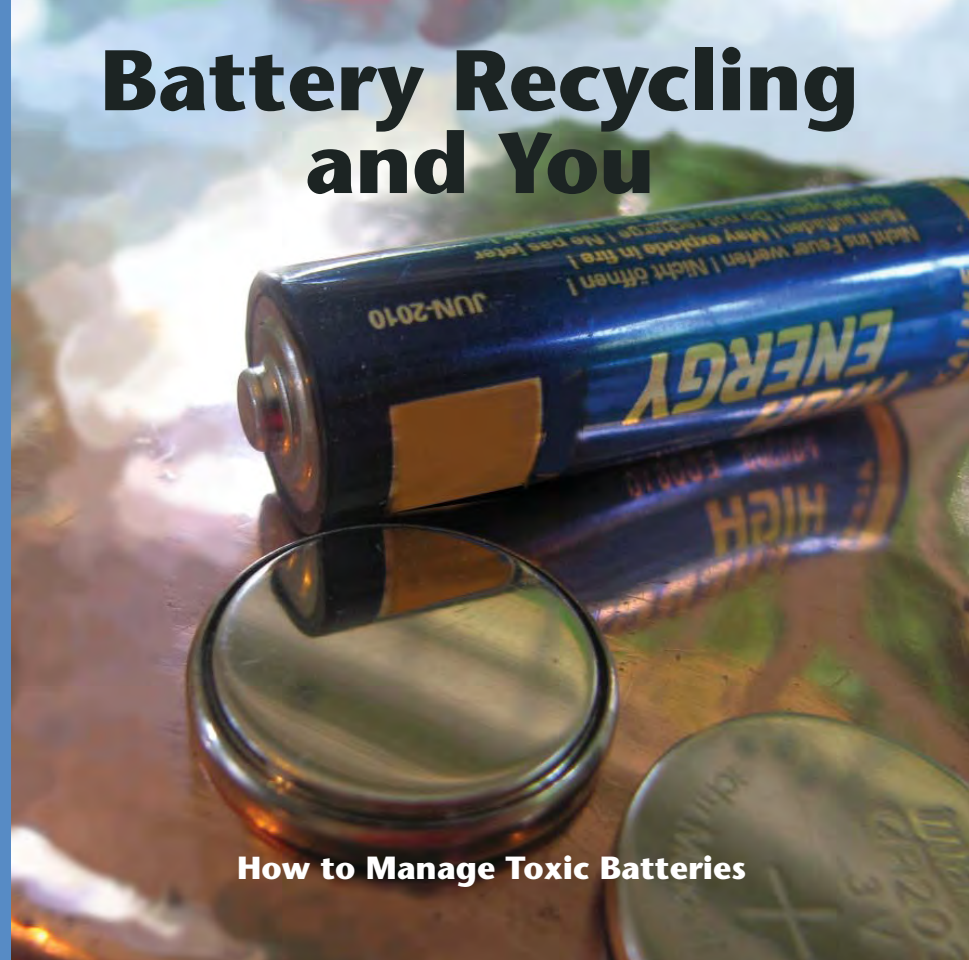


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2/2007. Printed on recycled paper.

How to Manage Toxic Batteries





Risk & responsibility: This guide is about the risks and responsibilities of managing toxic (or hazardous) household batteries. Household batteries are the portable single-use & rechargeable batteries we use every day at home and work.

Counting on batteries

How much does your lifestyle depend on household batteries?

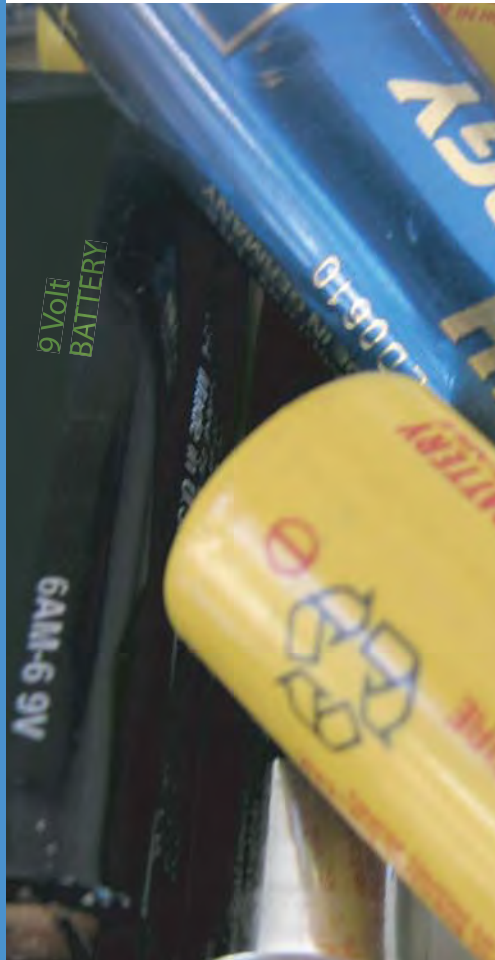
Look around your home or workplace. Count the number of batteries used to power cell phones, telephones, computers, watches, music devices, remote controls, cameras, smoke detectors, games, toys, hearing aids, flashlights, power tools, and more! How much do you know about the batteries you rely on every day? Do you throw toxic batteries into the garbage instead of recycling them? If so, does this make you responsible for battery toxins causing serious harm to people, animals, crops and nature?

Toxins inside threaten beauty outside

Inside their sealed cases, batteries contain toxic metals such as mercury and cadmium as well as other caustic materials. When batteries are manufactured, used and handled properly, these toxins should not put people or the environment at risk. However, when batteries are illegally dumped or littered, they are often crushed – rupturing their protective cases. Broken batteries release toxins in the air and on the ground – posing a serious risk to people and the environment. These toxins can also be carried by rainwater, untreated, into storm drains. Storm drains carry and empty these toxins directly into the Delta, the Bay, and other water supplies we all rely on.

Progressive businesses develop battery recycling programs to handle batteries used in daily operations and welcome the spent batteries used by employees outside their work environment.

The resources on the last pages of this booklet will help you comply with laws for the safe & legal disposal of batteries.



Careless disposal violates laws and nature

In California, all discarded batteries are considered hazardous waste (or universal waste). This includes AAA, AA, C, D, button cell, 9-Volt, and all other rechargeable and single-use batteries. According to state law, all batteries must be recycled or taken to a household hazardous waste disposal facility, a universal waste handler (storage facility or broker), or an authorized recycling facility where the metal can be safely recycled. In landmark legislation, the State of California passed two electronic waste recycling laws that now require retailers to take back and recycle all rechargeable batteries and cell phones.

State laws are well backed by federal laws, such as the 1996 Federal Battery Management Act that requires:

- Phase-out of mercury content in batteries
- Uniform labeling on Ni-Cd and specific Small Sealed Lead Acid batteries
- A recycle symbol with related wording on all battery packaging
- Rechargeable batteries to be easily removable to increase reuse and lower waste volumes

In the U.S. every year, over two hundred million pounds of household batteries are thrown away or littered by careless or uninformed people.

Facts about the most common batteries



Alkaline Carbon Zinc

What's Toxic Inside

Zinc, Carbon,
Manganese Dioxide,
Potassium Hydroxide,
Low Mercury

Commonly Used in

toys, smoke alarms,
pagers, remotes,
flashlights, appliances

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Nickel- Cadmium

What's Toxic Inside

Cadmium (Cadmium
Hydroxide, Cadmium
Oxide), Nickel (Nickel
Hydroxide, Nickel Oxide)

Commonly Used in

telephones, power tools,
cell phones, toys



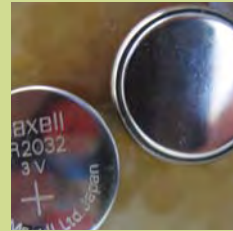
Lead Gel Cells

What's Toxic Inside

Lead-Lead Oxide,
Sulfuric Acid Electrolyte

Commonly Used in

emergency lighting,
backup power,
wheelchairs,
camcorders



Silver Oxide- Hydride Cells

What's Toxic Inside

Silver Oxide, Zinc Metal,
Potassium Hydroxide,
Mercury Metal,
Cadmium, Lead

Commonly Used in

watches, calculators,
hearing aids, cameras



Nickel Metal

What's Toxic Inside

Nickel Iron, Potassium
Cobalt, Lead, Manganese
Oxide, Aluminum Oxide,
Tin

Commonly Used in

computers, cell phones,
radios



Lithium Batteries

What's Toxic Inside

Lithium, Lithium Salts,
Manganese Dioxide,
Divanadium, Organic or
Inorganic Solvents

Commonly Used in

cameras, computers,
watches

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The CAUTION statement on most batteries warns consumers that incineration or improper connection/charging may cause batteries to explode. Another danger not printed on battery labels is that manufacturing defects may also cause them to explode when properly used.

Start better battery habits

Collect & recycle old batteries after following these tips:

- Read labels and buy batteries that contain less mercury and other heavy metals.
- Buy batteries only as needed since they have a limited shelf life.
- Buy & use rechargeable batteries and battery chargers.
- Charge only batteries marked rechargeable to avoid toxic leaks or ruptures.
- If a small charge is left in a battery you are ready to recycle, tape ends to avoid toxic leaks.
- Turn off battery-powered devices when not in use.
- Use electric power more and battery power less for dual-powered devices.
- Remove batteries from stored/seldom-used devices to avoid toxic leaks.
- Clean contact surfaces of devices & batteries to achieve maximum power usage.

Stop bad battery conduct

To avoid power loss...rupture...toxic leaks...short-circuits...explosions...

- Don't mix old batteries with new ones.
- Don't mix different types of batteries, or rechargeable with single-use batteries, in the same device.
- Don't dispose of batteries in a fire.
- Don't place batteries, or devices with batteries, where they could overheat.
- Don't open or tamper with battery cases.

Battery recycling resource

Delta Household Hazardous Waste Collection Facility

2500 Pittsburg-Antioch Hwy., Pittsburg, CA 94565

(On Arcy Lane across the street from Goodwill)

(925) 756-1990 or www.ddsd.org/hhw/hazardous_waste.html

Open Thursdays, Fridays, Saturdays from 9 a.m. to 2 p.m.

for drop off of hazardous waste for residents of Antioch, Bay Point, Bethel Island, Brentwood, Byron, Discovery Bay, Knightsen, Oakley and Pittsburg. Proof of residency – such as a utility bill or driver's license – is required at facility.

Free residential drop-off: In addition to household batteries, the facility accepts home & garden products, paint & related products, personal care products, fluorescent lights, mercury thermometers, propane tanks, and cooking oil.

Auto batteries: Recycle where purchased or at Delta Household Hazardous Waste Collection Facility.

Small business drop-off: Call for eligibility, fees & details.

Fee-based electronic waste drop-off: Visit website or call for fees.

Free battery buckets are available to Pittsburg residents for collection & transport to Delta Household Hazardous Waste Collection Facility. Call (925) 252-4110 or pick up at HHW facility or City Hall.

Pittsburg Businesses Accepting Spent Rechargeable Batteries

Best Buy
Circuit City
Home Depot
Kragen Auto Parts
Parrot Cellular
Radio Shack
Rite Aid
Staples
Toys R US



call2recycle™
A Rechargeable Battery Recycling Corporation program

Made possible by the Rechargeable Battery Recycle Corporation. To learn more and ask local retailers to participate, visit www.rbcc.org or call **1-800-822-8837**.

Consider earth-friendly alternatives

When buying your next electronic gadget, consider purchasing a product that does not require batteries. Look for products that are powered with traditional electricity or capacitors (electrical energy storage technology) or other alternative technologies.