



# *Charge Up Safety!*

## Call2Recycle<sup>®</sup> Collection Site Safety Training



## What you will learn

In this lesson, you will learn what you can do to safely prepare batteries for shipment. This lesson includes:

### **Part 1: Accepted Batteries**

- What batteries can be recycled through Call2Recycle

### **Part 2: Battery Preparation and Handling**

- How to safely collect and handle batteries
- What to do with damaged batteries
- How to safely store used batteries

### **Part 3: Box/Bulk Container Preparation and Handling**

- What containers are acceptable for shipping batteries
- How to prepare a collection box for shipment
- How to avoid potential safety incidents during transport

### **Part 4: Question**

### **Part 5: Tips to Remember**

**Batteries power the modern world, whether it's your tablet, children's toys, power tool or digital camera.**



When batteries lose their charge or ability to recharge,  
**it's time to recycle them.**

## What happens to a recycled battery?

The recycled materials that come from batteries are used to manufacture new products such as:



**NEW  
BATTERIES**



**SUNSCREEN**



**STAINLESS  
STEEL POTS  
& PANS**



**GOLF CLUBS**



**SILVERWARE**

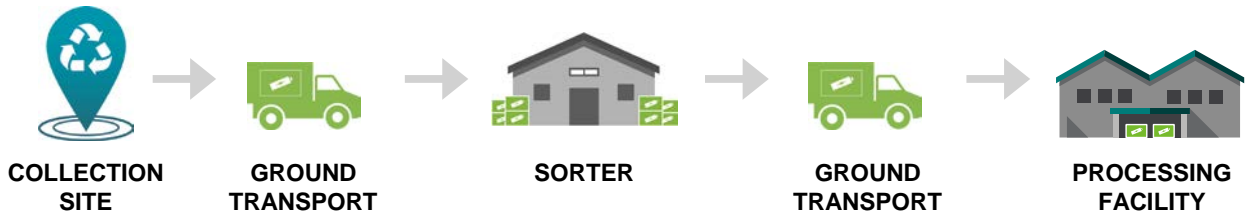


**ASPHALTS  
FOR ROADS**

Plus, the batteries are kept out of landfills!

## Where does a used battery go?

The recycling process begins when used batteries are dropped off at a Call2Recycle collection site. From there, the battery is shipped using ground transportation to a sorting facility.



**Safety is important during every step of the journey.**

## Why you should care about battery safety

1. As more products using batteries (e.g. toys, tools, electronics) are sold, more batteries are **flooding the market**.
2. Battery chemistries can be **hard to identify** making it difficult to know which are hazardous and require special preparation for shipping.
3. As the **power** of batteries increases and their size shrinks, the chances for severe fire incidents goes up.
4. Sales of **counterfeit batteries**, which are more likely to cause safety incidents, are increasing.

*Call2Recycle® Collection Site Safety Training*  
***Part 1: Accepted Batteries***



**Call2Recycle accepts rechargeable batteries  
each weighing less than 5kg**

**Accepted Rechargeable Batteries**



**Nickel Cadmium (Ni-Cd)**



**Lithium Ion (Li-Ion)**



**Nickel Metal Hydride (Ni-MH)**



**Small Sealed Lead Acid (SSLA/Pb)**



**Nickel Zinc (Ni-Zn)**



## Call2Recycle accepts primary batteries each weighing less than 5kg

### Accepted Primary (Single-Use) Batteries



**Alkaline: AA, AAA, 6V,  
9V, C, D, button cells**



**Lithium Primary**

## **Call2Recycle will NOT accept these batteries:**

- Batteries weighing more than 5 kgs
- Wet cell batteries (composed of a liquid), such as car or boat batteries
- Lithium Ion rechargeable batteries over 300 watt hours
- Lithium primary batteries with over 25 grams of lithium content
- Any batteries that do not fit in a Call2Recycle collection box

**Call2Recycle will NOT accept any Lithium Ion or Lithium batteries that show signs of damage such as swelling, smoking, leaking or overheating.**



**Do NOT place damaged Lithium Ion or Lithium primary batteries in a collection box. Immediately put them in an absorbent, non-flammable material (sand or cat litter) in a cool, dry area.**

Call2Recycle Canada offers special packaging for defective, damaged or recalled (DDR) Lithium Ion and Lithium Primary batteries. **Contact Call2Recycle Customer Service at 877.723.1297 for pricing.**

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***Part 2: Battery Preparation and Handling***



## Transport Canada requires terminal protection (bagging or taping) for the following battery types:

### Primary

- Lithium
- Alkaline – over 12v
- Button/Coin Cell

### Rechargeable

- Small Sealed Lead Acid (SSLA/Pb)
- Lithium Ion (Li-Ion)



*When in doubt of the battery type, Call2Recycle recommends batteries be individually bagged or taped.*

## Battery terminals must be protected

Here's why.



Many batteries hold a residual charge even when they appear dead. When this battery comes into contact with other batteries or metal, a spark or heat can occur.

Unprotected battery terminals can be dangerous.

## Bagging is the quickest and easiest way to protect battery terminals

Call2Recycle provides self-sealing plastic bags with its boxes

- ❶ Place the battery into a clear plastic bag
- ❷ Drop the battery in the bag
- ❸ Peel away the adhesive protective film
- ❹ Fold the flap over and seal by making contact between the adhesive strip and the bag



*Gloves are recommended in high-volume environments.*

## When you run out of Call2Recycle bags, you can use these:



**BEST OPTION**  
Clear bags provided by  
Call2Recycle



**Clear Ziploc® bags**



**Clear produce bags**  
(should be tied to seal)



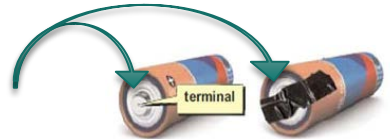
**Clear newspaper bags**  
(should be tied to seal)



**When clear plastic bags are not available, you can also use tape.**

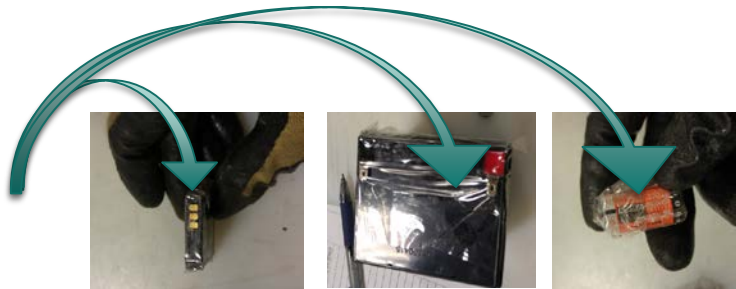
**For Lithium Primary - AA, AAA, C & D batteries**

Tape the positive (+) terminal (the one with the bump).



**Other battery types**

Tape the charging terminals.



**You can use these types of tape (clear preferred):**



**Clear packing tape**



**Duct tape**



**Non-conductive  
electrical tape**

*Only tape the terminals, DO NOT cover the entire battery or the chemistry type on battery label.*

## For button batteries, you can make a 'ravioli'

1. Lay down a piece of CLEAR packing tape, sticky side up.
2. Place the button batteries on the tape *with space between* each battery.
3. Cover with a second layer of CLEAR tape.

**CLEAR packing tape** helps the sorter identify the battery type quickly.



## Do NOT use any of the following to protect battery terminals



**Colored bags**



**Grocery bags**



**Paper bags**



**Paraffin or other dipping products**



**Painter's tape**



**Masking tape**



**Scotch tape**

## Lithium-based rechargeable and primary batteries are the most popular battery today

They are found in cellphones and other electronics.

They come in many shapes and sizes, are hard to identify and are very hazardous.



Always bag or tape **each** one!



*Call2Recycle® Collection Site Safety Training*  
***Part 3: Box & Bulk preparation and handling***



## What you need to know about collection boxes

### Call2Recycle accepts batteries returned in:

- Call2Recycle boxes
- Those pre-approved by Call2Recycle

Boxes must be stored in a cool, dry place and should be checked frequently.



## What you need to know about bulk shipping

### Call2Recycle accepts batteries returned in:

- UN-rated steel drum (1A) with plastic liner
- UN-rated polyethylene drum (1H)
- Call2Recycle boxes on a pallet

Drums must have an open head with lever locking ring lid and be stored in a cool, dry place.





## How you prepare a box for shipping

- 1 Visually inspect and remove all non-battery items



## Check that there are only batteries in the box!

**No paper! No plastic! No metal! No containers!**



No paper



No metals, such as screws or paper clips



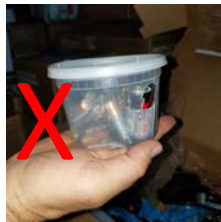
No extra items, such as light bulbs or other recyclables



No extra Call2Recycle plastic bags



No containers



## Prepare the box

- 2** Do **NOT** add any padding (paper, wood, pellets, etc.)



- 3** Seal the box
- Release the header tabs & side flaps
  - Remove backing from inside adhesive strips
  - Fold down while inserting side flaps
  - Cross tape the outside in a tic-tac-toe design (shown below).



## Prepare the box for shipment

- 4** Ensure label is legible and not damaged



- 5**
- **Do NOT** add warning labels.
  - **Do NOT** cover the text on the back of the box. The U.S. DOT requires the text to be visible.



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***Part 4: Question***



## Which box has been properly prepared for shipment?

*Answer on next slide.*

1



3



2



4



1



Batteries are properly bagged. The positive terminals are protected; bagging is consistent.

*Call2Recycle® Collection Site Safety Training*  
***Part 5: Tips to Remember***





## 8 things for you to remember

1. Bag or tape batteries according to Transport Canada:
  - ☑ Primary: (Lithium, Alkaline over 12V, Button)
  - ☑ Rechargeable (Lithium Ion, Small Sealed Lead Acid)
2. When in doubt of the battery type, individually bag or tape the battery!
3. Collection sites that ship batteries that are not properly prepared may face suspension/termination.
4. Batteries considered damaged, defective or recalled cannot be included in Call2Recycle's containers
5. Call2Recycle only accepts Call2Recycle boxes or those pre-approved by Call2Recycle.
6. Boxes should contain **only** batteries and cellphones, nothing else.
7. Check that the preprinted instructions and text on the back of the box are visible prior to shipment.
8. Boxes should be shipped when they are full (30kg) and within one year of the first battery being collected.

***Charge Up Safety!***

Thank you for your commitment to protecting the environment through safe battery recycling.





Get your safety questions answered at the  
Call2Recycle safety portal:

[www.Call2Recycle.ca/safety](http://www.Call2Recycle.ca/safety)  
<http://www.appelarecyclier.ca/securite/>

Follow Call2Recycle on social media for more tips:



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[www.Call2Recycle.ca/stay-informed](http://www.Call2Recycle.ca/stay-informed)