Jackson County Recycling Guide

Issue 6: 2022



Index

JCCD Accomplishments
2
HHW Disposal
4
Drop off Locations
8
Recycling Guidelines
10
A-Z Reuse Items
11
Spotlight: Lithium Ion Batteries
12





Address: 211 W. Ganson St. Suite 200 Jackson, MI 49201 Phone: 517-395-2082 Websites: www.jacksoncd.org | www.jacksonrecycles.wixsite.com/recycling www.facebook.com/JacksonCountyRecycles/

HIGHLIGHTS OF JACKSON COUNTY RECYCLING IN 2021

In 2021 we held two household hazardous waste collections. We succeeded in collecting 17,005 pounds of household hazardous waste from 125 customers. These collections were made possible thanks to a generous grant provided by the **Consumers Energy Foundation** and support from the **Jackson County DOT** and **Emmons Service Inc**.







FOUNDATION

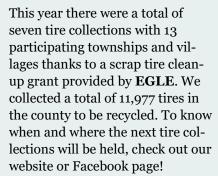




The 2021 Earth Day celebration took place at the Sparks Foundation County Park! Many vendors joined us with educational/hands-on activities for families.

We would like to thank our 2021 Title Sponsors for their support: **Emmons Service Inc., MACI, and Little Caesars.** If you would like to be part of our next Earth Day event, be sure to contact us!

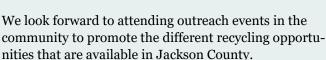
















Find all of our current events in our monthly newsletter and on our Facebook page at: https://www.facebook.com/jxncd/
You can also visit www.jacksoncd.org or call our office at 517-395-2082

Starting your Recycling Journey

A word about the clear and blue bag programs, offered by Emmons (clear bag), Modern Waste (clear bag), and Granger (blue bag): The bag program results in a simplified recycling process. Here's what the team from Granger had to say about their blue bag program:

"This type of recycling is cost-effective and efficient, as well as environmentally friendly since it uses only one truck instead of both a trash truck and a recycling truck. These blue recycling bags are specially designed to better withstand transport in a trash truck and their color makes them more visible so they can be easily separated at Granger's facility. The recyclables are later shipped to a single-stream sorting facility before being processed into new products."

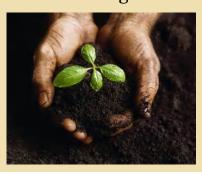
MUNICIPAL WASTE AND RECYCLING HAULERS

The first thing to do when developing (or improving) recycling habits is getting to know your haulers. Jackson County residents are able to pick from several waste management companies, and many of these companies provide recycling services at no extra cost to you! Please note, these services are for traditional products only, not for hazardous material (see pages 4-7). Go to page 11 for a list of unacceptable items

The list below includes information for curbside pick-up. For drop-off information, please refer to pages 8 and 9. For more detailed information on how these haulers operate, please contact your hauler.

Hauler	Contact	Recycling method
Emmons Service, Inc	517-787-8710	Place all recyclables in a clear bag, tied shut, and place out with your regular trash pick up.
Granger	517-372-2800	Place all recyclables in a blue bag with your regular trash pick up.
Republic Service	888-249-5112	Items are placed in a bin, unbagged, and picked up by separate recycling trucks.
Modern Waste Systems	517-536-4900	Place all recyclables in a clear bag, tied shut, and place out with your regular trash pick up.

Reuse your food waste through composting: A quick reference guide



BLUE/CLEAR RECYCLING BAGS

Recycling bags, both clear and blue (check the list above or call your hauler to find out what bags to use), can be purchased at the Conservation District office. Clear 13-gallon bags will be sold in rolls of 50, and blue 13-gallon bags will be sold in rolls of 25. Call our office for pricing info! Stop by the office, located at 211 W. Ganson St, Suite 200, Jackson. We're right across from Keeley Park.

If you have any feedback about the available bags, please drop us a line!

A great place to start reducing your waste is by composting your leftover food items. **Why**: It keeps food items out of the landfill, gives you free fertilizer for your garden, and gives nutrients back to the earth. **How:** There are many types of bins available to get your compost started, or you can

make your own. **The Basics**: Keep a good ratio of carbon to nitrogen (carbon comes from 'brown' material such as shredded paper, cardboard, or sawdust; nitrogen comes from 'wet' yard waste such as grass clippings, or leftover food scraps). Too much carbon will halt the decomposition pro-

cess, too much nitrogen will cause odor, and healthy compost has no odor. Turn the compost frequently to keep air circulating, and add water as needed to maintain a wet-sponge consistency. It takes just a few weeks to start seeing beautiful results for your garden!

Household Hazardous Waste (HHW)

Here are 4 qualities of hazardous waste:

- 1. Ignitability, or flammable. This is usually liquid/solids/gasses that can catch fire. 1
- 2. Corrosivity, or can rust or decompose such as acids that can eat through a container over time. 1
- 3. Reactivity, or explosive after an action.1
- 4. Toxicity, or poisonous. 1









- It's important to accurately dispose of hazardous wastes. When thrown in a landfill, hazardous wastes have the potential to leak into and contaminate drinking water. When incinerated, many hazardous wastes are released into the atmosphere as harmful toxins that can negatively impact our air quality.
- To minimize these effects, hazardous wastes must be disposed of safely and properly to allow the experts to safely break down the materials into non-hazardous products.
- A fee may be associated with disposal of some hazardous items, such as paint cans and televisions.
- One of the goals of the Conservation District is to make it easier for you to dispose of your household hazardous waste. Contact the District to see when the next household hazardous waste collection will be for the year.

PESTICIDES AND FERTILIZERS

Right now there are no permanent disposal sites for household pesticide and fertilizer waste. We are working on making this an available option in the future.

If you have an accumulation of pesticides, the Michigan Clean Sweep program has locations in Washtenaw and Ingham Counties. For more information, visit www.michigan.gov/mdard and click on the 'plant, pest, and pesticide' info menu on the right side of the webpage. Under that category, you will find the Clean Sweep program information. This program is made available by the Michigan Agricultural Environmental Assurance Program (MAEAP).

USED CAR FLUIDS AND BATTERIES

For auto batteries and used motor oil, brake fluid, and transmission fluid:

-O'Reilly Auto Parts- 950 N Wisner St, Jackson 517-768-0103

-Advance Auto Parts- 135 W Prospect St, Jackson 517-784-7140

For motor oil and batteries only:

-Emmons Services, Inc- 913 Water St, Jackson 517-787-8710

-Tractor Supply Co. – 3550 East Michigan Ave, Jackson 517-788-6884

For antifreeze:

-Call our office to see when the next household hazardous waste collection will be.



AEROSOL CANS

Many aerosol cans are used for materials that may have hazardous components.

If empty, most aerosol cans can be taken to a metal recycling facility (OmniSource). If there is still product in the can, please dispose of the cans during the household hazardous waste event, or take to a hazardous waste facility. Do not remove the spray nozzle; even spent cans are pressurized and can be dangerous.

Tips for Recycling and Safe Disposal

PAINTS

Oil-based paints are considered hazardous waste and should be disposed of properly. Latex paints are not considered hazardous waste and can be disposed of with your regular trash pick-up, as long as the paint is dry. You can also recycle latex paint; there are many programs which blend recycled paints for reuse!

Where can I take my liquid latex paint in Jackson?

- ⇒ Recycling Jackson takes liquid latex paint during warm months of the year. (For a small fee)
 - -Address: 1401 N. Brown St.
 - -Only open the first Saturday of every month
 - -Check out their Facebook page and website:

https://www.facebook.com/recyclingjackson/

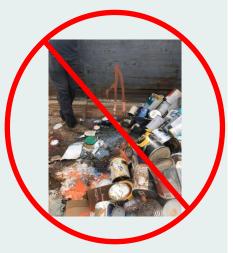
http://recyclingjackson.com

\Rightarrow Tips for drying latex paint:

- -If less than one inch remains, let it air dry in a location protected from precipitation, children, and pets.
- -If more than an inch remains, mix in cat litter, sawdust, soil, shredded paper, or another absorbent material, and let the paint dry. Dispose with your regular trash.

Where can I take my oil based paints in Jackson?

⇒ Oil based paint will need to be taken to a hazardous waste collection event or facility. Call our office to see when the next household hazardous waste collection will be for the year.



Do not throw liquid paint in the trash. It is hazardous to the environment.

Tips for Storing Paint

If you store paint properly it can last for years. So if you have paint that you want to reuse again check out these tips from the American Coatings Association²:

- ⇒ Cover the opening of the can with plastic wrap and securely seal the lid.
- ⇒ Turn the can upside down and place it in a room with moderate room temperature to avoid freezing.
- ⇒ Pick a location safe from pets or children.

*Empty paint cans can be thrown into the trash.

According to the Product Stewardship Institute..., "In 2000 about 637 million gallons of paint were sold in the United States, equal to approximately 2.3 gallons per person. Of that amount, 34 million gallons are estimated to become leftover, or "surplus," paint annually.3



Household Hazardous Waste (HHW)



ELECTRONIC WASTE

Electronic waste (e-waste) is electronical products that are close to or at the end of their life. Electronics are in our daily life and are used constantly. Why should we care about disposing of electronic waste properly? Some electronic waste can contain hazardous materials that shouldn't be thrown into a landfill.

Electronics are always being replaced with newer and better items. America goes through electronics so quickly it's important that we take the time to think about what we can do with it before throwing it away.

Recycling Jackson will accept electronic waste:

- -Open the first Saturday of the month
- -Some fees may apply with certain items
- -Check out their website for more info: http://recyclingjackson.com

Address: 1401 N. Brown St, Jackson, MI



Most places that accept electronic waste will take the following:

- answering machines
- cable/satellite receivers
- printers
- scanners
- cables and cords
- camcorders
- cameras
- calculators
- circuit boards
- computers
- copy machines
- dehumidifiers
- digital recorders
- DVD players
- fax machines
- hard drives
- humidifiers
- keyboards
- media (software floppy disks, CDs, DVDs, cassette tapes, VCR tapes)
- computer mice
- microphones

- microwaves
- monitors
- portable music play-
- network equipment (servers, hubs, mainframes)
- phones
- power tools
- postage machines
- printers
- scanners
- small home appliances
- stereos
- tape drivers
- toner and printer cartridges
- televisions
- type writers
- vacuum cleaners
- video game consoles and controllers
- zip drives



BATTERIES, LIGHTBULBS, AND ELECTRONICS

See the list in the top right corner for itemization of recyclable electronic materials. If you are recycling an item that has a battery, please remove the battery and recycle separately. Electronics and all alkaline, lithium, and rechargeable batteries can be recycled at Recycling Jackson. Please separate them if you have more than one type.

Other Locations in Jackson include:

Best Buy: 1014 Jackson Crossing, Jackson, 517-841-4300 Accepts: Batteries, old phones, and some TVs and computers

Home Depot: 1400 N Wisner Rd, Jackson, 517-817-5401 Accepts: Fluorescent bulbs and batteries from power tools

Lowes: 1535 Boardman Rd, Jackson, 517-796-5500 Accepts: Fluorescent bulbs and batteries from power tools

Menard's: 3588 Page Ave, Jackson, 517-748-9063 Accepts: Vehicle batteries and any type of lightbulb

Batteries+Bulbs: 1401 N W Ave, Jackson, 517-513-6070

Accepts: Batteries and bulbs

Liberty Landfill: 7900 South Meridian, Clark Lake, 517-787-1177 Accepts: Cell phones, computers, most devices with a circuit board



Tips for Recycling and Safe Disposal

MEDICATION/PHARMACEUTICALS

Increasing amounts of prescription drugs and other medications are being found in drinking water supplies due to inappropriate disposal (i.e. flushed down the toilet). To help prevent this contamination, pharmaceuticals may be dropped off at the following locations:

For pills only (no liquids, inhalers, patches, or needles):

City of Jackson Police Department | Everyday from 6am-10pm 216 E. Washington Ave, Jackson 517-788-4100

Jackson County Office of the Sheriff | M-F 8-4:30 212 W. Wesley St, Jackson 517-768-7900

Michigan State Police | M-F 8-4 3401 Cooper St, Jackson 517-780-4580

Meijer Pharmacy | M-F 8-9pm | Sat 9-7pm | Sun 10-6pm All Locations There is a drop off container located in front of each Meijer Pharmacy inside the store. Open during pharmacy hours.

Non-narcotic pills, liquids, and patches may be taken to:

Center for Family Health | M 8-7, Tu-F 8-5:30 505 N. Jackson St, Jackson 517-748-5400

Pills, liquids, inhalers, ointments, patches (no needles):

Walgreens | M-F 8-10pm | Sat & Sun 9am-9pm 1314 N. West Ave Jackson 517-783-1803

CVS Pharmacy | M-F 8-9pm | Sat 9-6pm | Sun 10-6pm 605 N. West Ave Jackson 517-841-4201

Follow these simple steps to dispose of medicines in the household trash

MIX

Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, kitty litter, or used coffee grounds;

€

PLACE

Place the mixture in a container such as a sealed plastic bag;



THROW

Throw the container in your household trash;



SCRATCH OUT

Scratch out all personal information on the prescription label of your empty pill bottle or empty medicine packaging to make it unreadable, then dispose of the container.



EGLE put together a drug disposal map. Check it out through this link: https://www.michigan.gov/EGLEdrugdisposal



SHARPS/NEEDLES/SYRINGES

Please never place loose needles or syringes in the trash. For safe disposal, follow these instructions:

- Place needles point-first into a thick plastic bottle.
- Clearly label with 'DO NOT RECYCLE'.
- When the container is over half-full, tape the lid on and place it in the trash.

Some sharps/needles/syringes can be taken to a household hazardous waste facility. Before visiting a HHW center be sure to call and make sure they collect sharps at their facility!











DROP-OFF LOCATIONS FOR STANDARD MATERIALS

Please note: This list is not for household hazardous waste. Please refer to pages 4-7 for non-standard materials. In addition, all drop-off recycling items must follow the same guidelines for items picked up curbside. Please refer to page 10 for the proper guidelines.

Household Materials

Recycling Jackson

Location: 1401 N. Brown St, Jackson

Contact: 517-414-6142

Hours: The first Saturday of every month from 9-1

Accepts: All forms of paper, all types of metals, plastics #1-7, glass, all electronics and most things with an electric cord, Styrofoam and packing peanuts, fluorescent bulbs, batteries (separate lithium and rechargeable batteries), latex paint (warm months only)

Cost: Free for all items except: Some electronics may have a disposal fee charge (between \$10 and \$30), \$0.25

per lightbulb, \$1 per pound of **sorted** batteries, \$2 per gallon of latex paint, and there is a \$1 surcharge for glass.

Emmons Recycling

Location: 913 Water St, Jackson

Contact: 517-787-8710 **Hours:** M-F 7:30-4:30

Accepts: Newspaper, mixed paper, tin and aluminum cans, corrugated cardboard and brown paper bags, boxboard, and plastic containers #1-7, Styrofoam (drop off only)

Does Not Accept: Paint cans, aerosol cans, automotive product containers, any type of glass, household batteries, lightbulbs, ceramics or Pyrex materials, or plastic bags and film wrap, pizza boxes, refrigerator or freezer boxes, shredded paper

Cost: No charge

Modern Waste

Location: 7245 S. Brooklyn Rd, Napoleon

Contact: 517-522-2521

Hours: M-F 8-3:45 | Sat 8-11:30am

Accepts: Newspaper, magazines, junk mail, cardboard, paper board, plastics #1 & #2, tin, aluminum, steel

Does Not Accept: Plastics like vinyl siding, hangers, toys, shrink wrap, flower trays, plastic fencing, plastic bags and automotive fluid containers, window glass, glass, sliding glass doors, dishes, light bulbs, wood, Styrofoam, metal items like non-food containers, gas cans, air conditioners, burning barrels, chairs and garage door openers.

Yard Waste and Organics

Emmons Recycling

Location: 913 Water St, Jackson

Contact: 517-787-8710 **Hours:** M-F 7:30-4:30

Accepts: Grass and leaves only Cost: \$1/bag (limit 6/day)

Liberty Landfill

Location: 7900 South Meridian, Clark Lake

Contact: 517-787-1177 **Hours:** M-F 7-4:30 | Sat 7-1

Accepts: Grass clippings, leaves, and brush.

Cost: Call for details

Styrofoam

Dart Corporation

Location: 10123 State Rd, Rives Junction

Contact: 517-569-3100 Hours: Saturday 8-1 Accepts: All Styrofoam

Recycling Jackson

Location: 1401 N. Brown St, Jackson

Contact: 517-414-6142

Hours: The first Saturday of every month from 9-1

Accepts: All Styrofoam

Emmons Recycling

Location: 913 Water St, Jackson

Contact: 517-787-8710 **Hours:** M-F 7:30-4:30

Accepts: Any Styrofoam except packing peanuts

Building Material Re-Use

ReStore-Habitat for Humanity

Location: 251 West Prospect St, Jackson

Office Contact: 517-784-6620 ReStore Contact: 517-784-7640 Donation Hours: Tu-Sat 11-4

Store Hours: Tu-Sat 9:30-5 | M-Sun Closed

ReStore accepts dropped-off items and will also pick up,

free of charge!

Metal Recycling

Omnisource Recycling

Location: 711 Lewis St, Jackson

Contact: 517-787-4940 **Hours:** M-F 7-3

Accepts: Anything metal (automobiles, all grades of: aluminum, brass, and copper, radiators, stainless steel, and steel and iron including most appliances)

Does not accept: Anything containing PCBs (i.e. fluorescent light ballasts, capacitors, transformers), mercury, radioactive materials, or asbestos, batteries other than lead acid, rail scrap, municipal scrap, closed or pressurized tanks, or beer kegs

Payments: The value of scrap metals changes frequently. Contact the company to find out the value of your scrap!

Recycling Jackson

Location: 1401 N. Brown St, Jackson

Contact: 517-414-6142

Hours: The first Saturday of every month from 9-1

Accepts: Most scrap metal

Paper Materials

MDK Recycling, LLC

Service: On-site document shredding and paper/cardboard pickup for **industrial** and **commercial**

businesses

Location: 2015 Townley St, Jackson

Contact: 517-783-2450 **Hours:** M-F 8-4:30pm

Accepts: HDPE plastics, PET plastic, LDPE plastic, sort-

ed office and mixed paper, newspaper, OCC

Payment: Will pay for truckload quantities of material.

Contact MDK Recycling for more information.

Recycling Jackson, Emmons, and Modern Waste

Service: Drop-off sites for these haulers are found in various locations. See page 3 for contact info for your hauler's drop-off locations!

The 'Do Not Recycle' List

Keep these items out of the recycling bins:

- Pizza boxes with grease: grease clogs up the recycling machines. If it has any grease on the bottom, tear off the top for recycling and dispose of the bottom with your trash.
- Metal pots and sauté pans: these may instead be taken to a re-use center.
- Anything with food residue. Materials for recycling need to be clean and dry. Food residue can contaminate a load of recycling; the higher the amount of residue and contamination, the lower the value of those recyclables. Food, grease, and beauty product residue can all cause contamination resulting in potential thin spots, holes, or other damage to the finished recycled product.
- Paper coffee cups. These are lined with wax or plastic coating to keep liquids from leaking.
 Instead, consider compostable or reusable beverage containers!
- Other paper items like used tissues, paper towels, napkins, paper plates.
- Used medical devices or personal hygiene items (including needles and syringes, diapers, and other medical waste). These items can pose serious hazards to employees at the recycling facility. For proper medical waste disposal, see page 7.
- Certain plastic items: flat plastic lids, plastic bags, film wrap, plastic utensils or plates, sandwich and freezer bags, tarps, plastic toys, hard plastic packaging, candy wrappers, cereal bags, snack bags, bulky rigid plastics such as 5-gallon buckets or lawn furniture, or empty motor oil bottles.

Other helpful tips:

By learning these items on the "Do Not Recycle" list you can avoid recycling contamination.

Most recycling haulers have printable versions of what they accept and do not accept on their website. Print if off and hang it on your fridge.

PROPER RECYCLING GUIDELINES AND DISPOSAL GUIDELINES FOR CURBSIDE PICKUP

Aluminum Cans and Foil

- Aluminum cans: please clean out food. Flattening the can is not necessary, but does create more space.
- Aluminum foil: ball clean foil to 2 inches or larger, no flat foil or balled up less than 2 inches.
- · Pie plates and trays: must be free of food.

Steel/Tin Cans

• Food cans and lids: empty and rinse free of food, place lids in the can and lightly pinch the top closed. Labels may be left on.

Cartons

- Plastic milk, juice, and soup cartons and boxes: Empty and rinse; flattening is not required, but helps conserve space.
- NO cardboard wax-coated milk or juice cartons.

Plastic Containers

- Containers labeled #1-7 accepted by Granger and Emmons; and #1,2 only by Modern Waste.
- · Empty and rinse thoroughly.

Note: The numbers in the triangles do not necessarily mean that the item is recyclable; it just tells you the type of plastic from which it is made. Call your waste hauler to find out more information!

Glass Food and Beverage Containers

• Clean glass food and beverage containers can be taken to Recycling Jackson (1401 N. Brown St.). Do NOT put in your recycling bin.

Plastic Bags

- Clean plastic grocery bags can be taken to any of these locations. Do NOT put in your recycling bin:
 - -Meijer, 3333 E. Michigan Ave or 2777 Airport Rd
 - -Target, 1076 Jackson Crossing
 - -Wal-Mart Supercenter, 1700 W Michigan Ave
 - -Kroger, 1100 W. Argyle St
 - -Emmons, 913 Water St (drop off only)

Paper Products

- Newspaper and inserts.
- Magazines, catalogs, phone books.
- Office items: Printer paper, notebooks, hanging file folders, brochures, index cards, manila folders, envelopes.
- · Junk mail.
- Paperboard (cereal and cracker boxes, tissue, shoe, gift, and 6 or 12 pack beverage packag-
- Paperback books.
- Pizza boxes: Make sure they are clean of food and grease remnants. See the 'Do Not Recycle' list on page 9.
- **NO paper towels, tissues, or napkins. These can be composted instead. See page 3 for composting information!

THE 'WISHFUL THINKING' MINDSET CAUSES RECYCLING CONTAMINATION

This frame of thinking occurs when you have an item you're not sure is recyclable, but you throw it in the recycling bin anyway, just in case. This is a form of recycling contamination. By doing this, it can actually slow down the whole recycling process and will send those items on a longer trip to the landfill.

Whether a recycling facility utilizes manual sorting or machine sorting, inappropriate items sent to the facility makes the whole sorting process more difficult, costly, and time consuming. A worst case scenario could result in those inappropriate items damaging machinery, causing the facility to shut down for hours or days.

To help reduce the chances of this occurring, always refer to the list of acceptable items from your recycling service provider. If you're not sure, call the facility to get your questions answered! Do your best to follow the guidelines provided to you and help make the recycling process as efficient and cost-friendly as possible!

- 1. Understanding the 4 Characteristics Of Hazardous Waste https://www.hazardouswasteexperts.com/understanding-the-four-characteristics-of-hazardous-waste/
- 2. What To Do with Leftover Paint https://www.paint.org/publications-resources/education/the-five-point-plan-for-leftover-paint/3. Kem-tone Wall Finish Article https://www.acs.org/content/acs/en/education/whatischemistry/landmarks/kem-tone.html 4. EGLE Household Hazardous Waste https://www.michigan.gov/egle/0,9429,7-135-3312_4118-70304--,00.html#Batteries

- 5. A Brief History of Lithium Ion Battery Development https://www.hidenanalytical.com/blog/lithium-ion-battery-development/6. Used Lithium-Ion Batteries | US EPA https://www.epa.gov/recycle/used-lithium-ion-batteries
- 7. It's time to get serious about recycling lithium-ion batteries https://www.lithium-battery-factory.com/recycling-lithium-ion-batteries/



CLOSING THE LOOP: REDUCING WASTE BY REUSING ITEMS

ABOUT THIS SECTION

We're taking recycling to the next level— instead of just recycling, reuse it! Every annual guide will contain this section. In it, we will feature a few commonly thrown-away or recycled items with clever reuse ideas.

This section will hopefully give you fun, easy-to-do ideas to increase your recycling and reusing habits and ultimately reduce your environmental impact.

Top tip: Before you toss something out, take a second to think if it can be reused or recycled. Also, buying recycled items is a great step in closing the loop. Tissues, toilet paper, and paper towels are a great place to start as they often have a percentage of post-consumer recycled content!

Bucket planters



Crayons - melt and remold





Floormats - reuse old floormats in a crawlspace, barn or shed

osing S

9

Styrofoam trays - create art prints





www.craftnhome.com

Wood scraps - create a birdhouse or a homemade Jenga game





If you'd like to share your creation, please visit us at facebook.com/ JacksonCountyRecycles and post your photo. We would love to hear from you!

Many of these repurposing ideas were shared by:

repurposedMATERIALS

www.facebook.com/ RepurposedMaterials

The spotlight is on: Lithium Ion Batteries

Every issue, we will pick one recyclable item to spotlight. You will get a whole explanation of that item, including the history, composition, common products it gets turned into, and any other little tidbits of knowledge we can scrounge up. For this year's recycling guide issue, we are focusing on lithium ion batteries.

Lithium ion batteries are the rechargeable batteries found in all kinds of products like electric vehicles, cell phones, laptops, tablets, cordless power tools, and other handheld gadgets. Some are even button-sized and found in small electronic devices like vapes, hearing aids, and watches. They are becoming more and more popular because they are smaller, more powerful, and last longer than dry cell alkaline batteries.⁴



HISTORY OF LITHIUM ION BATTERIES

Pioneer work on the lithium battery began in 1912, however it wasn't until the 1970s when the first non-rechargeable lithium batteries became commercially accessible. During the oil crisis of the 1970s, an English chemist began working on the concept of a new battery that was able to recharge on its own in a timely manner. He hoped that this could lead to fossil fuel-free energy in the future. In the 1980s, safer variations were developed. This was the beginning of the lithium ion battery as we know them today.⁵



ARE THEY HAZARDOUS?

If not properly managed at the end of their useful life, they can cause harm to human health or the environment. Lithium ion batteries contain materials that burn quickly and violently when damaged. As such, unwanted batteries and unwanted equipment containing batteries should be handled carefully and promptly recycled where possible. To prepare lithium ion batteries for recycling, the E.P.A. recommends placing each battery or device containing a battery in a separate plastic bag and place non-conductive tape (e.g., electrical tape) over the battery's terminals. If the lithium ion battery becomes damaged, contact the battery or device manufacturer for specific handling information. Even used batteries can have enough energy to injure or start fires. Not all batteries are removable or serviceable by the user. Heed battery and product markings regarding safety and use.

These batteries also contain toxic substances that if placed in a landfill will endanger our health and the environment. When you dispose of a lithium ion battery, you need to take it to a trusted recycling center. You can send individual batteries to specialized battery recyclers, retailers that are participating in takeback services, or contact your local solid waste or household hazardous waste program for more options.⁶



WHAT ARE MY RECYCLED BATTERIES MADE INTO?

Your recycled batteries are made into more affordable batteries! Battery experts and environmentalists provide many reasons to recycle lithium ion batteries. Recycled materials can be used to make new batteries, reducing manufacturing costs.

Reducing dependence on battery material mining may also slow down the consumption of these raw materials. Limited availability and the environmental impact of mining means that recycling these scarce elements for battery manufacturing is critical to reducing the environmental impact of battery use throughout the life cycle.⁷