# Info

This document serves to answer the following questions:

0. What is an aseptic carton?

0-1. YouTube explanation

1. recycling preparation / bulk preparation

--> Although \_\_ cannot be recycled in bulk, it can be separated into pieces to recycle. (NEED TO RE-READ...)

1-1. YouTube demonstration

2. recycling process

3. why are chip bags (not) recyclable?

# List

AEROSOL CAN (EMPTY) // 스프레이 캔

1. Do your best to use up all the product inside. If the can still has product inside, even if it’s nonhazardous product like whipped cream, your recycling program will not accept it. The easiest way to make sure it’s empty is to shake the can and listen for liquid inside, or spray until nothing comes out.

Most aerosol cans come with a plastic cap, which should be removed and recycled separately. Visit our recycling guide on plastic caps for more information.

DO NOT puncture a hole in the can to remove any remaining product, as the can will explode and hurt you. You should also not attempt to remove the spray nozzle on top of the can.

Verify whether your community accepts aerosol cans with other metal cans, or whether they are classified as household hazardous waste (HHW). There are separate disposal options for each.

https://earth911.com/recycling-guide/how-to-recycle-aerosol-cans/

1-1. https://www.youtube.com/watch?v=ZAmAL9VsM2A

2. The process for recycling full aerosol cans is simple. Using special equipment, a worker punches a hole in the can and allows any remaining liquid to drain out. The liquid is kept in a secure container so it can be disposed of properly. The empty metal can is sent to a metal recycler.

from https://recyclenation.com/2014/04/recycle-aerosol-cans/

3. Aerosol cans are made of highly recyclable steel, similar to a can of Campbell's soup with one important difference. Aerosol cans' contents are under pressure. That's where recycling them gets tricky.

Aerosol cans need to be completely empty to be sent safely through the recycling process because pressurized gas can explode if crushed during transport or at the sorting facility. Aerosol gasses are flammable as well so be sure to use up all the contents before recycling.

From https://www.recyclebycity.com/chicago/brief/can-i-recycle-aerosol-cans

AEROSOL CAN (FULL OR PARTIALLY FULL)

(same as above)

\*\*ANIMAL BEDDING\*\*

ANTIFREEZE

3. Antifreeze may contain heavy metals such as lead, cadmium, and chromium in high enough levels to make it a regulated hazardous waste, so it should be treated as a regulated hazardous waste rather than a trash. If recycled in facilities, most antifreeze is put back to use treatment as antifreeze. Automotive shops can recycle it on site using specialized machinery. The machines remove the heavy metals and any oil that has made its way into the liquid, and then add chemicals to keep the ethylene glycol from breaking down.

https://www.epa.gov/sites/production/files/2016-02/documents/antifreeze.pdf

https://recyclenation.com/2014/01/recycle-antifreeze/#:~:text=Most%20recycled%20antifreeze%20is%20put,ethylene%20glycol%20from%20breaking%20down.

ASEPTIC CARTON // 네모난 우유곽

0. Aseptic cartons, which are made of layered paper, aluminum foil and plastic, are often packaged with juice, chicken broth, soup, non-dairy milk and many other.

https://thegrocerystoreguy.com/are-aseptic-containers-recyclable/#:~:text=Aseptic%20cartons%2C%20which%20are%20made,be%20mailed%20to%20recycling%20centers.

0-1. https://www.youtube.com/watch?v=W5Yavzu\_e4g

1. Be sure to remove any lids, straws, or fancy extras that come with your packaging. They go in the garbage. Recycle only empty cartons. Rinsing isn’t required for recycling them, but it does help ensure that the container is empty, as well as help reduce potential odor or pest issues in the recyclables. It is not necessary to flatten your cartons and, in fact, it can slow the recycling process.

https://earth911.com/home-garden/recycling-mystery-milk-and-juice-cartons/

2. The cartons are shipped to paper mills where they are mixed with water in a giant blender called a hydra-pulper. This process separates the paper from the plastic and aluminum. Once separation is complete, the paper fiber is ready to be transformed into new products such as tissues, office paper, and even building materials depending on the area of the country and the mill.

The plastic and aluminum materials are collected from the hydra-pulping process as well. The plastic, when re-purposed separately, is often used for shipping crates and building materials. However, in North America, it is often left in a combined state with the aluminum, creating a material called a poly/al mix. The poly/al mix has a limited secondary use market, but some mills have been able to use it to generate energy for their facilities.

https://earth911.com/home-garden/recycling-mystery-milk-and-juice-cartons/

3. The long paper fibers found in aseptic boxes and milk cartons are valuable, so many recycling facilities have machine to separate the fibers from aseptic boxes. End-products from these mills include printing and writing paper, tissue, and paper towels.

https://www.waste360.com/mag/waste\_profiles\_garbage\_aseptic

\*\*BACKPACK\*\*

BAG (PLASTIC)

1. Remove anything inside the bags, such as receipts, stickers, or crumbs. All these items will contaminate your bag load.

Keep a bag collection bin in your house, such as one big garbage bag for all bags. Since they compact easily, you should be able to fit 50 to 100 plastic bags in one garbage bag.

Make sure any bags you are recycling have a #2 or #4 plastic symbol on them. If not, you can’t be sure what plastic resin the bag is made from, so you’ll want to reuse it instead, before eventually throwing it away.

2. Plastic bag recycling involves chipping the bags into pellets. While pellets can then be reprocessed into new bags, they will most likely be shipped to a company to be manufactured into plastic lumber.

https://earth911.com/recycling-guide/how-to-recycle-plastic-bags/#:~:text=Plastic%20Bag%20Recycling%20Process,be%20manufactured%20into%20plastic%20lumber.

3. Typically made of high-density polyethylene (HDPE, number 2 plastic) or low-density polyethylene (LDPE, number 4 plastic), plastic bags and other soft plastics are difficult to recycle because of their form. Plastic bags are lightweight and can easily get blown to places they don’t belong, and because they’re thin and flexible, they have a tendency to get snagged or tangled in machinery. So it's important to recycle them not in most curbside recycling bins but in collection bins in your local grocery stores.

https://livegreen.recyclebank.com/column/because-you-asked/can-i-recycle-plastic-grocery-bags-in-the-recycling-bin

BAKED GOODS (CAN BE USED FOR ALL FOOD ITEMS)

3. While food residue gets burned away during the recycling process for plastic, glass, and metal, the same can’t be said for paper. When paper is recycled, it is mixed with water to form slurry. Oil and fat from food residue don’t mix with water; instead, they float on top of the slurry and mingle with the paper pulp. Oily pulp makes very poor quality paper and is, in effect, unusable.

In single-stream recycling communities, all accepted materials go in the same recycling bin together. This creates the risk of grease or food residue transferring from a plastic, metal, or glass container (which is technically fine to recycle even if it has residue on it) to paper materials (which cannot be recycled if it has residue on it). It’s best to avoid any possible cross-contamination by rinsing soiled recyclables and keeping all food residues out of the bin.

The biggest reason to keep grease and food residue out of the recycling technically isn’t a recycling issue at all! It’s a sanitary one. Food residue spoils, which can create unsafe conditions for workers in recycling facilities. Prevent mold and bacteria from growing on your recyclables by rinsing them before you put them in the bin.

https://livegreen.recyclebank.com/column/because-you-asked/why-can-t-i-recycle-stuff-with-food-on-it

BAKING TRAY (ALUMINUM) \*\*\*APPLIES FOR ALUMINUM FOIL!!\*\*\*

1. To recycle your aluminum foil and trays, simply give them a quick rinse after use and place them directly in your curbside recycling container.

https://www.dakotavalleyrecycling.org/curbside/quick-guide-how-to-recycle-aluminum-foil#:~:text=Did%20you%20know%20that%20aluminum,waste%20which%20can%20contaminate%20collection.

2. Once aluminums are collected from your recycling bins, they are sent to the aluminum recyclers where the aluminums are shredded into tiny pieces. These are then heated into molten aluminum along with thousands of other cans and are formed into an ingot.

http://www.dwswa.org/recycle-reuse-articles/2016/5/12/how-aluminum-beverage-cans-are-recycled#:~:text=Aluminum%20is%20a%20resilient%20metal,recycled%20over%20and%20over%20again.&text=The%20bales%20are%20sent%20to,are%20formed%20into%20an%20ingot.

3. Aluminium can be recycled foreve because can be melted down and reformed without losing any quality, so the process can be repeated over and over again. Besides, recycling aluminium saves around 95% of the energy needed to make the metal from raw materials.

https://alupro.org.uk/consumers/why-is-recycling-aluminium-so-important/

BALL (TRASH)

3. Most exercise balls are made of vinyl, which is not easily recycled. (More precisely, the balls are commonly made from a soft and elastic polyvinyl chloride (PVC) cover that's inflated with air. PVC contains a high volume of chlorine, and often phthalates as well. However, it is difficult to recycle PVC because of the high cost of recycling PVC, not to mention the toxic fumes that can be released when it is reprocessed, so the material is not accepted at most recycling centers.) Instead, sporting goods manufacturers may have take-back programs and accept old exercise balls for reprocessing such as this!!!!!!: https://www.recycleballs.org/solution/ !!!!!!!!!

https://homeguides.sfgate.com/exercise-balls-recyclable-79390.html

BALLOONS

3. The two primary types of balloons made and sold in the U.S. are latex and Mylar. Both materials cannot be re-melted or dissolved in solvents easily, so they are generally considered non-recyclable. If you put used balloons in the trash, they’ll end up in landfills, where latex balloons will eventually biodegrade (because they’re made from the sap of a rubber tree), meaning that f they are released in the air, they will break down over time. However, Mylar balloons will never biodegrade (because they are made of a type of plastic). So for Mylar ballons, it is highly recommended to give a second life.

https://balloons.online/blog/post/point-to-keep-in-mind-while-disposing-of-foil-balloons#:~:text=Proper%20Disposal,polluting%20both%20land%20and%20water.

BARBEQUE (refer to FOOD)

BARBEQUE GRILL

1. \*\*\*TRASH/RECYCLIN INSTRUCTION\*\*\*

Although \_\_ cannot be recycled in bulk, it can be separated into pieces to recycle.

If you have a gas grill, your first concern is the propane tank. Propane tanks are a hazardous waste; in some states, they are banned from landfills and many local communities have additional regulations regarding their disposal. The dealer where you obtained the gas will usually accept empty tanks for recycling. Even if they don’t, they can probably advise you of local laws and disposal options. If you are dealing with a very old grill, you might need to deliver the tank to the local fire department for safe handling.

Once you have dealt with the propane tank, some communities will allow you to dispose of the rest of the grill as trash. In many places, you will only be able to recycle your grill if you break it down yourself. Many barbecues are also stealth electronics — household items containing electrical components that require special handling. Ignition wires, thermometers, electric controllers, and batteries are all e-waste that should not go in your garbage.

Plastic side shelves marked with a recycling symbol and plastic wheels are recyclable if your community recycles plastics. But don’t assume these pieces can go in your curbside recycling bin. Call your local waste company to confirm where you can recycle these plastics. Most other plastic components, such as knobs and handles, are garbage. The propane hose is also currently unrecyclable.

Gas valves are usually made of recyclable brass or aluminum. Metal casters, grill lids, shelves and the grill body are usually recyclable as scrap metal. This is true even if they are rusted.

https://earth911.com/home-garden/recycling-mystery-barbecue-grill/#:~:text=Call%20your%20local%20waste%20company,you%20can%20recycle%20these%20plastics.&text=Gas%20valves%20are%20usually%20made,even%20if%20they%20are%20rusted.

1-1. https://www.youtube.com/watch?v=SyP9NloWq5c (for money, though)

ANOTHER ONE: https://www.charbroil.com/learn/how-to-dispose-and-recycle-your-old-gas-grill/ <<<- maybe include some numbering for recycling step / part?

3. A barbeque grill cannot be simply recycled in bulk because it is too big to go into the recycling machinary and is made of many components that are hard to separate into pieces.

BASKETBALL HOOP

1. To prepare your basketball hoop for curbside collection, basketball hoop needs to be disassembled. The backboard and base can be bulk trashed if they have no water and sand. If backboard and base are made of plastic #1-7, they can be recycled. The pole is scrap metal, which can be recycled if it is free of concrete.

https://www2.montgomerycountymd.gov/DepHowDoI/material.aspx?tag=basketball-hoops&material\_key=21

3. Basketball hoop is made of many materials, which are difficult to separate during recycling process. Unless these materials are separated in advance, basketball hoop is not recyclable.

BATTERY (DISPOSABLE)

1. Place a piece of non-conductive clear tape over the ends to prevent any current transfer. You can also bag each battery individually instead of taping the ends.

Store the batteries in a plastic or cardboard container that doesn’t conduct electricity in case there is a spark.

https://www.batterysolutions.com/news/dispose-old-batteries-right-way/

3. Batteries contain a number of heavy metals and toxic chemicals, which `commonHazardous`

BATTERY (RECHARGEABLE)

1. Remove batteries from their electronics. Dead laptops must be recycled separately from dead laptop batteries. This is not required for small electronics like cellphones or iPods, which can be accepted by most battery recyclers. Cover the terminals with non-conductive tape clear tape so that doesn't conduct electricity in case there is a spark.

Rechargeable batteries of any kind should not be placed in your trash can (or dumpster). It is illegal in some states to do so because rechargeable batteries contain heavy metals that can be hazardous to the environment.

https://www.batterysolutions.com/news/dispose-old-batteries-right-way/

3. Batteries contain a number of heavy metals and toxic chemicals, which `commonHazardous`

BED FRAME

3. Metal bed frames can be recycled as scrap metal, they can be recycled. However, wood bed frames are made of treated wood. \*\*WOOD FURNITURE\*\* That makes them difficult, if not impossible, to recycle. The main uses for recycled wood are compost, garden amendments like mulch or burning it for energy. The chemicals in varnishes, paints and other wood treatment products make your old furniture a bad candidate for all those applications. More and more furniture items are made with less-expensive particleboard and chipboard, but these products fall in the nonrecyclable category as well. Particleboard (which has a grainy look) and chipboard (which looks like it is made of wood chips) are made by chopping up old bits of wood and adding glue to form sheets of lumber. The glue often contains formaldehyde and other toxic chemicals.

https://recyclenation.com/2014/06/recycle-furniture/

BEVERAGE BOTTLE (GLASS) \*\*APPLIES TO ALL non heat-resistant GLASS\*\*w

1.

Do your best to not break glass bottles, as there is no market for recycling broken glass.

You can leave the label/foil on, but many recyclers will ask you to separate the metal caps. This is partly to ensure that all liquids are removed. Remove all wine corks.

Don’t worry about non-liquids in the bottle, such as a lime wedge in a beer bottle or bits of cork in a wine bottle.

Remove any non-containers from your glass recycling, such as Pyrex, glassware, windows, and mirrors. These glass products can’t be recycled with containers.

2.

Glass is taken from the bin and taken to a glass treatment plant, where the glass is sorted by color and washed to remove any impurities. Then the glass is then crushed and melted, then molded into new products such as bottles and jars. Or it may be used for alternative purposes such as brick manufacture or decorative uses. The glass is then sent back to the shops ready to be used again.

http://www.recycling-guide.org.uk/science-glass.html

3. Glass does not degrade through the recycling process, so it can be recycled again and again.

http://www.recycling-guide.org.uk/science-glass.html

BEVERAGE BOTTLE (PLASTIC) \*\*applies to all PLASITC\*\*

1.

Most recycling programs ask that you rinse your bottles and jugs before recycling. The remnants often contain sugar, which will attract insects and generate odors.

You’ll want to check with your local program whether to keep caps on the bottles, or whether caps are accepted at all. Some programs want the cap on to prevent loose caps from falling out during transportation. Others want the cap off to ensure the bottle is empty and because their recycling machinery may be damaged when trying to crush a capped bottle.

You should be OK leaving the label on the bottle, but it’s unlikely to be recycled since it’s a low-grade quality of paper or plastic.

https://earth911.com/recycling-guide/how-to-recycle-plastic-jugs-bottles/

2. Recycling centers use optical scanners to identify the type of plastic resin, so #1 and #2 plastics are separated from each other and other materials (such as paper and glass). Bottles are then crushed (where caps are removed if you haven’t already done so) and baled to be sent to a plastic recycler.

Recyclers will shred the #1 or #2 plastic into flakes, which are washed, rinsed and dried. Flakes are then melted into pellets, then transported to a manufacturer to make new plastic bottles/jugs or other products, such as lining for sleeping bags, T-shirts, carpet, or playground equipment.

https://earth911.com/recycling-guide/how-to-recycle-plastic-jugs-bottles/

3. When plastics are heated up, they get soft, so they can be shaped into any form. https://www.sciencefocus.com/science/why-are-some-plastics-recyclable-and-others-are-not/ As a side note, when different types of plastics are melted together, they tend to phase-separate, like oil and water, and set in these layers, so they need to be separated in advance based on their types.Also, each time plastic is recycled, additional virgin materials must be added to help improve the integrity of the material. So, even recycled plastic has new plastic material added in.

https://www.sciencefocus.com/science/why-are-some-plastics-recyclable-and-others-are-not/

BEVERAGE CAN (ALUMINUM)

1 & 3 FROM ALUMINUM

2. You should rinse your cans to remove any leftover food. This will prevent your recycling bin from smelling and reduce the risk of animals attacking your recycling.

BICYCLE

1. bicycle can be partially recycled once it is separated into pieces.

1) Dismantle it: The first step is to take your bike apart so that you can recycle the various components separately. That means removing the tires and other non-metal parts so that you’re left with just the metal frame and a pile of other materials.

2) Scrap metal recycling: Your frame is likely made of an alloy metal which can be easily recycled at a local scrap metal recycling center or even at your drop-off recycling center.

Tire recycling programs: Your rubber bike tires can often be recycled through regular tire recycling programs, including store recycling programs such as those at Costco.

3) Curbside recycling: Metal parts, including the frame, can often be picked up directly from your home with your other household waste. Call your local recycling authority to find out for sure.

4) Landfill recycling program: Sometimes your local landfill will have a bike collection service. Call your local solid waste management office to find out if you can recycle your bike through this type of program.

http://www.ecolife.com/recycling/household/rhow-to-recycle-donate-used-bicycle.html

3. Bicycle is made of many parts that cannot be easily separated during recycling process, which makes it difficult to recycle.

BINDER

1. Although \_\_ cannot be recycled in bulk, it can be separated into pieces to recycle.

1) Remove any papers, dividers, etc. in the binder. Recycle what you can (basically, any paper, no plastic).

2) Remove the metal rings. All it takes is a hammer and little elbow grease: Place the binder, open, on the floor. Hold it in place with your feet (closer to the center is better). Place the claw end of the hammer under the metal and around the first fastener and pull straight up. Rotate and repeat on the other end of the rings and voila! Metal rings

3) Remove vinyl cover: Using a box cutter, slice a big “x” in each panel of the binder (front, back, and spine). Remove the paper chipboard.

https://www.scarce.org/recycling-faq-binders/ (PHOTOS ARE LISTED)

* 1. YouTube: https://www.youtube.com/watch?v=\_Re9H1\_JPos

3. "BINDER is `commonBulk`

\*\*BLANKET\*\*

upcycle ideas: https://www.jeffersonlanehome.com/blogs/news/11-ways-to-recycle-your-old-bedding-and-towels

https://www.apartmenttherapy.com/how-to-recycle-your-old-towels-75474

BLEACH

1. Bleach should be safely disposed based on the bleach label or in the proper facility. After the proper disposal, the container can be recycled.

https://earth911.com/inspire/programs-initiatives/safely-dispose-cleaning-products/

3. Bleach is considered as a hazardous material that can release the toxic fumes when it is reprocessed, so it is not accepted at most recycling centers.

BLINDS

1. Blinds can be recycled not as a whole but as pieces that are separated composed of different materials. There are many types of blinds, and each blind takes different steps to recycle. To find out more details, please visit this website. !!!!! <https://www.blinds.com/blog/how-to-recycle-blinds>!!!!

3. \*\*copy from many composed bulk material stuffs\*\*

BOOK (HARD COVER)

1. You’ll need to remove the cover because it has non-paper components, often composed of buckram or other cloth.

1-1. YouTube: https://www.youtube.com/watch?v=rhcJVfgJ6Co

2. \*\*paper process\*\*

Since books are mixed paper, the first step in recycling is to separate these products from cardboard, office paper and newspaper grades. The mixed paper is then baled and sent to a mill.

At the mill, there are machines called pulpers that introduce water and chemicals to break down the paper into fibers. Then, any ink and adhesive is removed and the paper fibers start bonding together. Finally, the fibers are rolled and dried, then sent off to make new products. Because mixed paper fibers are smaller than cardboard or office paper, this paper is recycled into lesser-quality paper products, such as coffee filters, egg cartons and paper towels.

https://earth911.com/recycling-guide/how-to-recycle-books-magazines/#:~:text=Most%20curbside%20recycling%20programs%20accept,binding%2C%20unless%20you%20remove%20it.&text=Companies%20like%20Better%20World%20Books,condition%20to%20sell%20them%20online.

3.

BOOK (SOFT COVER)

1. For paperback books, you can recycle the book whole, including the binding.

BOOKSHELF

\*\*SAME FOR WOOD BED FRAME\*\*

BOTTLE (CERAMIC)

\*\*APPLIES TO ALL CERAMICS\*\*

1. To recycle ceramics, the first thing is to search online to see if you have a recycling yard near by — if its accepted materials includes brick or cement, then you might be in luck! Give them a call to see if they accept ceramics. If they do, you can clean the ceramics and send them to the recycling yard.

2. When recycled, ceramics are crushed to be used for drainage systems and rock base for driveways. They can also be broken and then spun to smooth the edges for use as gravel.

3. According to Waste Management, the presence of ceramics like coffee mugs and plates in a batch of your typical, curbside-recyclable glass will weaken the recycled product, which is why ceramics aren’t usually accepted.

https://livegreen.recyclebank.com/column/because-you-asked/what-should-i-do-with-my-chipped-dishes-and-bowls