

# A Comprehensive Guide for Temperature-Controlled Packaging Disposal



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## Introduction to Packaging Disposal

Today, being environmentally responsible is more important than ever, especially when it comes to disposing of temperature-controlled packaging. With growing awareness and stricter regulations, businesses and individuals need to know how to properly manage and dispose of these materials.

We've designed this document to help by providing a detailed guide on how to dispose of various types of temperature-controlled packaging, such as standard gel packs, phase change materials, water blankets, and different kinds of coolers.

Our goal is to give you the knowledge you need to identify your packaging materials and dispose of them correctly to minimize their environmental impact. We'll cover disposal methods for a range of materials, from biodegradable options to those needing specialized recycling channels. Following these guidelines helps you contribute to sustainability and comply with local waste management rules.

Whether you're a business aiming to improve your sustainability practices or an individual wanting to reduce your environmental footprint, this guide is an essential resource for responsible packaging disposal.

### Know What Kind of Packaging You Have

The first question about packaging disposal is: Can you throw them in the garbage, or is there some particular disposal method for it? While this sounds simple, before you bid farewell to any packaging, it's crucial to check the packaging for any specific disposal instructions. In cases where packaging provides no specific instructions, we advocate erring on the side of caution.

Let's explore the different types of packaging materials you might receive, and how to dispose of them.

## Standard Gel-Packs

It's important to note that most gel packs are designed to be non-toxic and safe for use with food, pharmaceuticals, and other sensitive products, but always check the product information or packaging for specific details on the composition of the gel pack being disposed of. The exact formulation of the gel can depend on the manufacturer and the intended use of the gel pack.

TempAid gel packs come in several varieties, some designed for unique purposes (i.e., food versus medications).

If the gel pack consists of water:

1. Thaw the gel pack by leaving it out at room temperature.
2. Cut open a corner of the pack and squeeze the gel into the sink or toilet.
3. Dry the plastic film and bring it to a designated plastic bag drop-off.

If the gel pack contains anything other than water:

1. Thaw the gel pack by leaving it out at room temperature.
2. Cut open a corner of the pack and carefully squeeze the gel into the garbage. Avoid washing them down sinks or toilets, as it can cause drain clogs.
3. Rinse the plastic film thoroughly.
4. Dry the plastic film and bring it to a designated plastic bag drop-off.



Gel packs come in many shapes and sizes.

**Note:**

- If not taking the plastic film to a drop-off, you can dispose of the gel pack in the garbage.
- Be mindful of local recycling guidelines for plastic film and other materials.

## EarthWise™ Gel Packs

These environmentally friendly gel packs contain an all-natural gel refrigerant safe for pouring down a household drain or flushing in a toilet. The coolant does not impact pipes and is safely processed within municipal wastewater or home septic systems.

While the heavy-duty plastic pouch is durable and capable of being cleaned and refrozen for repeated use if you need to dispose of them:

1. Thaw the gel pack by leaving it out.
2. Cut open a corner of the pack.
3. Squeeze the gel into the sink or your toilet. If disposing in the sink, run the water first.
4. Rinse the plastic film thoroughly.
5. Dry the plastic film and bring it to a designated drop-off location. It can be recycled anywhere #4 low-density polyethylene plastic is accepted.



EarthWise Drain Friendly Gel Packs

## Water Blankets

Our water blankets are food contact safe and contain only water. To dispose of them:

1. Thaw the water blanket by leaving it out.
2. Since they have several “pockets,” each containing water, carefully cut open or puncture each pocket.
3. Pour the contents down the drain.
4. The outer film may be recyclable with plastic bag collection points at many supermarkets. However, some water blankets are composed of composite plastic which may not be accepted. Unless you know the plastic is marked as recyclable, and you know the plastic number, don't assume it is always recyclable.



TempAid Water Blankets

## Hard Bottle PCMs

Phase change materials (PCMs) absorb and release thermal energy during melting and freezing, maintaining a constant temperature for extended periods. Available in various forms like bottles, packs, panels, and mats, TempAid offers several types and sizes of hard bottle PCMs in recyclable high-density polyethylene (HDPE) and low-density polyethylene (LDPE).

HDPE is favored for recycling as it can be transformed into new products such as containers and piping. LDPE, used for items like grocery bags, is also recyclable but less commonly accepted. Always check local recycling guidelines for accepted materials and preparation steps.

The content of a PCM can vary based on the manufacturer, so it is best to check with the manufacturer before disposing of the PCM liquid. TempAid PCMs consists of a non toxic gel that is composed of proprietary biodegradable ingredients, which means it can be poured into the trash before disposing of the bottles.

Once resource to refer to is the “How2Recycle Store Drop-off”. This service allows you to drop off plastic films and bags, including HDPE and LDPE, at participating retail locations: <https://how2recycle.info/about-the-how2recycle-label/store-drop-off-us-only/>



Hard Bottle PCMs

## PCM Mats and Packs

In addition to the hard bottle PCMs and flexible gel packs mentioned above, TempAid offers a unique line of PCMs that are flexible. Referred to as PCM Packs or Mats, these products contain also contain a of proprietary biodegradable ingredients, which means it can be poured into the trash.

Once the contents are emptied, you can rinse the plastic and dispose of it in your local recycling bin (if your area allows it), otherwise, place it in your standard trash bin.

Note that some regions of North America do not recycle all plastics. Refer to the resources at the end of this guide or contact your municipal waste organization for more information.



PCM Mat



PCM Pack

## Expanded Polystyrene (EPS) Coolers

### Standard Styrofoam Coolers:

The typical cooler has limited options, so the best option is to reuse the cooler as much as possible, or switch to one of the biodegradable options offered by TempAid.

### EarthWise Biodegradable EPS Coolers:

Most discarded plastics end up in landfills. Microorganisms found in these landfills are the key to the biodegradation of TempAid expandable polystyrene resin. Thanks to a unique additive, this revolutionary grade of EPS interacts and biodegrades with the resin's chemistry to break down the polystyrene at a molecular level, just like the anaerobic conditions found in biologically active landfills.

Regardless of the type of cooler, at the end of its usable life, you are limited to 2 options:

1. **EPS recycling facility:** One of which is to dispose of the cooler through an EPS recycling facility that accept this type of plastic. These facilities can repurpose EPS into new products. These may be limited in some areas, but you can find nearby EPS recycling centers by using resources such as the EPS Industry Alliance's recycling map. here: <https://www.epsindustry.org/recycling-map>. In Canada, BC has a recycling depot for coolers. Refer to this website for more information: <https://recyclebc.ca/where-can-i-recycle/find-a-depot/>
2. **Municipal Waste Services:** If recycling or reuse is not an option, disposing of EPS coolers through local municipal waste services is another route. Flattening or cutting the cooler into sections may maximize space in your bins, but regardless of how you dispose of them, it's best to contact your local waste management service to confirm if they accept EPS, as it can vary by location.



Standard Styrofoam Cooler



Biodegradable EPS Cooler from TempAid

## EarthWise™ Cellulose Insulation Disposal

The cellulose insulation is manufactured using clean Double-Lined Kraft (DLK) and panels are certified for curbside recyclability by Western Michigan University but are not compostable.

To dispose of them:

1. Remove the cellulose panels from the corrugated box to ensure proper sorting at your local material recycling facility. No cellulose and Kraft paper separation is required for these panels to be placed in the blue bin.
2. Consult your local municipality for instructions on recycling requirements in your area.

If your municipality does not offer those services, online options, such as Earth911 or RecycleSearch, provide tools to help you find recycling centers in your area.



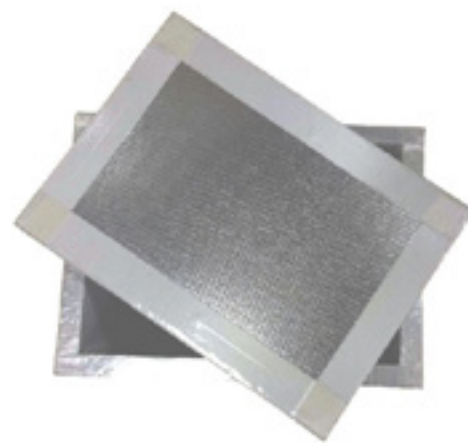
EarthWise Recyclable Insulation

## Vacuum Insulated Panels

Upon receiving a shipment featuring Vacuum Insulation Panels (VIPs), any damage to it where the vacuum may be compromised requires appropriate disposal measures.

Disposing of them poses challenges due to the composite nature of materials within them, often rendering them incompatible with conventional recycling programs. When VIPs are components of a broader packaging ensemble, separating them from other materials, such as cardboard or plastic, is advisable.

When recycling options for VIPs are unavailable, proper disposal in regular trash or a landfill may be necessary. However, adherence to local regulations is imperative, as certain regions may have specific directives governing the disposal of such materials.



Example of Vacuum Insulated Panels

## SpeedyPac™ Mailer

Since this product integrates the refrigerants into the mailer construction itself, you have a few options:

- **Check for Reusability:** If the mailer is in good condition (no tears in the outer casing, for example) it can be reused or repurposed for other cooling needs.
- **Recycling:** You can contact your local recycling center to inquire if they accept PCMs (phase change materials), but if not you can use scissors to carefully cut open the envelope and remove the refrigerants. You can then reuse the refrigerants and dispose of the mailer in your standard trash.
- **Disposal:** If recycling is not an option, dispose of the PCM mailer (without the PCM refrigerants) in accordance with local regulations for plastic waste. This typically means placing it in the appropriate bin for plastic disposal.



SpeedyPac Mailer

**Note:** Avoid burning or incinerating mailers.

## Cardboard

As cardboard is predominantly employed in shipping, it's essential to eliminate any shipping-related components, such as packing peanuts, plastic bags, cardboard dividers, and bubble wrap.

1. Use a knife or scissors to cut any tape sealing the box's top and/or bottom.
2. Flatten the box to save space for recycling. You can leave the tape on, but most recycling facilities prefer flattened boxes. Consider folding or cutting the flattened box in half for large boxes to ensure it fits into your recycling cart.
3. Find a designated drop-off location for cardboard recycling in your area.



Cardboard Comes in Many Shapes and Sizes

**Note:**

- Avoid placing boxes outside during rainy weather, as wet cardboard is not accepted in recycling due to its lack of market demand.
- If dealing with food-soiled boxes, like pizza boxes, remove any food residue before recycling. Pizza boxes with oil stains, excluding food remnants, are generally acceptable in most curbside recycling programs.

## SteadyPac Plastic Corrugate

Our SteadyPac Long Duration Cubes contain several revolutionary components. One of which is a protective outer box made of a corrugated plastic. Composed of polypropylene or coroplast, it is resilient, lightweight which makes it highly reusable. You might also think about re-purposing it such as in DIY projects or as durable, moisture-resistant covering.

Disposal options for corrugated plastic:

- **Recycling:** While it is made from recyclable polypropylene, not all facilities accept it due to processing challenges. Verify if local programs accept corrugated plastic. If yes, flatten the box to save space and then place it in the recycling bin as directed or take it to a designated recycling center.
- **Disposal:** If recycling or repurposing isn't possible, flatten it and dispose of it in your regular trash, checking with local authorities for any specific disposal guidelines.



SteadyPac Plastic Corrugate



## Packing Peanuts

Packing peanuts typically come in two varieties: EPS Styrofoam and corn starch.

Packing peanuts made from corn starch are often referred to as biodegradable or compostable packing peanuts. These eco-friendly alternatives are designed to break down more easily than traditional Styrofoam peanuts. They can be added to your compost pile and are water-soluble. Just like with traditional peanuts, consider dropping off corn starch packing peanuts at shipping retailers like UPS Stores or FedEx Office locations. They often have designated bins for packaging materials.

Most packing peanuts are made of polystyrene, a plastic polymer also known as Styrofoam. These can be difficult to recycle, and options may be limited, but if you need to dispose of them:

1. Separate packing peanuts from cardboard, paper instructions, plastic bags, and other EPS packaging in the shipping box.
2. White packing peanuts are commonly accepted at drop-off sites; other colors may not be.
3. Pack all packing peanuts in a single container, like a clear plastic bag.
4. To dispose of packing peanuts, contact local shipping stores to see if they accept them for reuse. While some EPS recyclers will accept peanuts, you should contact them to confirm if there's a minimum quantity accepted for recycling.

**Note:** When disposing of packing peanuts in the trash, ensure they are contained within a single bag to prevent them from escaping the garbage truck during transportation and becoming litter.



Packing Peanuts

## Bubble Wrap

Bubble wrap poses recycling challenges as it cannot go into standard recycling bins. Only a few facilities accepting plastic will take bubble wrap due to its potential to disrupt sorting machines. Drop-off locations exist, but you should contact your local municipality for more information.

For finding recycling locations, you can also consult the “Drop-off Directory” at <https://bagandfilmrecycling.org/> or <https://earth911.com/>.



Bubble wrap

## Disposal Quick Reference

The below is a quick reference of the essential points covered in this guide.

| Product                        | Disposal Method                                                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Gel-Packs             | Thaw, squeeze gel into sink/toilet (if water-based) or garbage (if other), dry plastic film, recycle or dispose in garbage.                                    |
| EarthWise Gel Packs            | Thaw, squeeze gel into sink/toilet or can be emptied into a garden. Rinse plastic film and recycle it at a designated drop-off location.                       |
| Water Blankets                 | Thaw, cut open pockets, pour contents down the drain, recycle outer film if possible.                                                                          |
| Hard Bottle PCMs               | For recycling guidelines, refer to local resources or the “How2Recycle Store Drop-off” service.                                                                |
| PCM Mats and PCM Packs         | Empty & rinse the plastic pouches, recycle if local guidelines permit, or dispose of them in standard trash                                                    |
| Standard Styrofoam Coolers     | Reuse or recycle through EPS recycling channels, or dispose in garbage if recycling is not available.                                                          |
| Biodegradable EPS Coolers      | Dispose in a landfill where microorganisms biodegrade it, or same as standard EPS (i.e., recycling or garbage).                                                |
| Cellulose Insulation           | Recycle curbside with no separation needed, or find local recycling centers through Earth911 or RecycleSearch.                                                 |
| Vacuum Insulated Panels (VIPs) | Dispose in regular trash if recycling is not available, follow local regulations.                                                                              |
| SpeedyPac Mailer               | Reuse if in good condition, contact local recycling for phase change materials, or dispose of PCM envelope in accordance with local plastic waste regulations. |
| Cardboard                      | Remove non-cardboard components, flatten, and recycle at designated locations. Avoid recycling wet or food-soiled cardboard.                                   |
| SteadyPac Plastic Corrugate    | Recyclable in some areas; check with local recycling programs or consider repurposing it, and if neither is feasible, flatten it and dispose in regular trash. |
| Packing Peanuts                | Separate from other materials, check local drop-off sites, or compost if biodegradable. Contain in a single bag if disposing in trash.                         |
| Bubble Wrap                    | Drop off at designated recycling locations, contact local municipality for more information. Avoid placing in standard recycling bins.                         |

## What to Do If You Are Unsure What Packaging Can Be Recycled

If you are unsure what can be recycled in your area properly, check with your local waste management agency or municipality. They may have specific guidelines or disposal programs in place for these items.

As mentioned earlier, there are several websites with information on recycling locations, including:

### For the US

Below are several recommended resources in the US to check whether a package is recyclable in your area. Remember, your community's recycling website is often the best source for information specific to your local recycling program.

- **How2Recycle Store Drop-off:** <https://how2recycle.info/about-the-how2recycle-label/store-drop-off-us-only>
- **Plastic Film Recycling:** <https://how2recycle.info/wp-content/uploads/2024/04/Store-Drop-off-Locations.pdf>
- **TRP Chatbot:** <https://recyclingpartnership.org/what-can-i-recycle/>
- **Keep America Beautiful:** <https://kab.org/recycling/> | [Earth911.com](https://earth911.com) | [bagandfilmrecycling.org](https://bagandfilmrecycling.org) | [epsindustry.org/recycling-map](https://epsindustry.org/recycling-map) | [recyclenow.com/recycling-locator](https://recyclenow.com/recycling-locator)

### For Canada

Recycling guidelines can differ by province, territory, and even local community. To find out if a package is recyclable in your area, your best resource is the recycling website or information provided by your community. Residents of the listed provinces should use their local resources to verify the recyclability of materials.

- **British Columbia:** <https://recyclebc.ca/what-can-i-recycle-2/>
- **Saskatchewan:** <https://sarcan.ca/how-to-sarcan/what-to-recycle/>
- **New Brunswick:** [https://www2.gnb.ca/content/gnb/en/departments/elg/environment/content/land\\_waste/content/recycling/recycle.html](https://www2.gnb.ca/content/gnb/en/departments/elg/environment/content/land_waste/content/recycling/recycle.html)
- **Alberta:** <https://www.alberta.ca/recycling>
- **Newfoundland and Labrador:** <https://rethinkwastelnl.ca/>
- **Manitoba:** <https://www.recyclemanitoba.ca>
- **Nova Scotia:** <https://novascotia.ca/nse/waste/muncollection.asp>

## Frequently Asked Questions

- **How does corrugated cardboard differ from paperboard?**

While the term “cardboard” is commonly used for various boxes, it’s essential to note that shipping boxes are officially referred to as corrugated cardboard. The distinctive feature of corrugated cardboard is the additional layer of fiber that zig-zags between the brown sheets, providing increased tear resistance and enhanced durability for shipping purposes. On the other hand, paperboard is thinner and less robust, typically utilized for items like cereal boxes. Despite being colloquially labeled as cardboard, they represent distinct paper grades with varying commodity values.

- **What prevents the recycling of wet cardboard?**

Despite incorporating water in the paper recycling process, getting paper wet and allowing it to dry alters the fibers, resulting in a stiffer feel. Additionally, paper mills are hesitant to pay for wet paper due to the added weight from the excess water.

- **Can I place packing peanuts in my curbside recycling bin?**

Many cities do not include any type of expanded polystyrene (EPS) in their curbside recycling programs. However, it’s essential to verify this information locally. Even if your local program claims to accept #6 plastic (which technically includes EPS), foam plastics are often excluded.

## Looking for Guidance or a Replacement to Your Packaging Solutions?

You may not generally think of it, but the most environmentally friendly packaging materials can be reused several times before packaging disposal. If this isn’t possible, it is important to properly dispose of your packaging materials to prevent them from causing harm to the environment or wildlife. By following these simple tips, you can dispose of cold gel packs in an environmentally friendly way.

If you are looking for a more environmentally friendly solution, contact our team for more information so we can design a packaging system that works for you.

