Facts and Figures

The U.S. Plastics Pact's List of Problematic Items to be Eliminated

Ocean Conservancy®

The U.S. Plastics Pact

Officially launched in August 2020 as part of the Ellen MacArthur Foundation's wider Plastics Pact Network, the U.S. Plastics Pact is a consortium of more than 100 businesses, government bodies, and nonprofits – including Ocean Conservancy – working to establish a more circular plastics economy by 2025. The four target goals, announced in June 2021, include:

1. By 2021, define a list of packaging to be designated as problematic or unnecessary and, by 2025, take measures to eliminate them.
2. By 2025, 100% of plastic packaging will be reusable, recyclable, or compostable.
3. By 2025, 50% of plastic packaging will be effectively recycled or composted.
4. By 2025, all plastic packaging will contain, on average, 30% recycled content or responsibly sourced bio-based content by weight.

Private sector members include major consumer packaged goods companies like Colgate-Palmolive Company, General Mills, Keurig Dr Pepper, Kimberly-Clark, L'Oreal USA, Nestle, The Coca-Cola Company, and Unilever United States; retailers like ALDI US, Target, and Walmart, Inc.; plastic packaging makers like Amcor as well as waste and recycling companies. (SOURCE: U.S. Plastics Pact)

Altogether, 33% – or 5.6 million metric tons – of all plastic packaging in scope in the country is produced by U.S. Pact Activators.

Criteria

The list of items was developed based on criteria agreed to by Pact Activators. These materials (e.g., resins #1-7) and formats (e.g., bottles, straws, etc.) are not widely reusable, recyclable, or compostable and are not projected to be by 2025. In addition, these materials met one or more of the following criteria:

- Contains hazardous chemicals or creates hazardous conditions that pose a significant risk to human health or the environment;
- Can be avoided or replaced by a reuse model;
- Disrupts the recyclability or compostability of other items; and/or
- Has a high likelihood of being littered, according to data from Ocean Conservancy's International Coastal Cleanup as well as Keep America Beautiful data.

Items to be Eliminated

- **PETG (polyethylene glycol)** – Despite sounding similar to PET plastic, PETG includes glycol. Glycol increases transparency, but also changes the plastics' melting temperature – which makes it harder to recycle along with regular PET, contaminating the recycling stream and even damaging recycling machinery.
    - Example: clear, rigid plastic covers – sometimes with cardboard backs – used to package a wide range of consumer goods
- **PVC (polyvinyl chloride, resin #3)** – PVC packaging makes up such a small proportion of the recycling stream that it cannot be recycled at any meaningful scale. As a result, it's considered a contaminant in the waste stream. Further, vinyl chloride, the monomer used to make PVC, is classified by the EPA as a human carcinogen.
    - Example: Clear take-out clamshells
- **PS (polystyrene, resin #6)** – Given its light weight and use in food ware (resulting in dirty plastics), it is not economically feasible to recycle PS, nor will it be

by 2025. Expanded PS (EPS) or plastic foam is a major source of pollution as it easily breaks into microplastics. In fact, foam pieces have been the #1 most commonly collected microplastic during the International Coastal Cleanup® (ICC) every year since microplastics have been counted (2013). Legislation banning certain types of PS has passed in 7 states (Maine, Vermont, Maryland, Washington, New York, New Jersey, and Virginia) and multiple major cities.

  - Examples: Red drink cups (PS), foam coffee cups and take-out food containers (EPS)

- **Undetectable pigments** – Certain colorants cannot be identified or sorted with the current near infrared (NIR) sorting systems used by most material recovery facilities (MRFs) in the recycling process.

  - Example: Carbon black in black take-out containers

- **Opaque or pigmented PET (polyethylene)** – Although PET is widely recyclable, opaquely colored products contaminate the recycling stream because the colors leave the resulting recycled plastics stained, limiting their use in future products and leaving them to get "downcycled."

  - 41% of recycled PET is "downcycled" into carpets and other textiles. (SOURCE: National Association for PET Container Resources)

  - Examples: any colored PET bottles other than transparent blue or green), such as those often used for detergent

- **Oxo-degradable additives** – Oxo-degradable additives are chemicals intentionally added to plastics to make them break down more easily. These additives, which typically contain metal catalysts, do not lead to actual biodegradation; rather they weaken the plastics and lead to greater microplastic pollution and lower quality recycling outputs.

  - Examples: compost bag liners and doggy poop bags were often advertised as biodegradable but are in fact only oxo-degradable

- **Problematic labels** – Packaging labels that are difficult to remove and made of a different material than the rest of the package render the entire package unrecyclable, contaminating the recycling stream.

  - Examples: full shrink-wrapped bottle labels, certain adhesives, inks, and materials outside the APR Design® Guide.

- **Cutlery, straws and stirrers** (provided in addition to packaging) – Given their small size and odd shapes, plastic straws, stirrers, forks, knives, and spoons cannot be readily sorted in recycling facilities and lead to contamination in other plastic recycling streams.

  - In the U.S., cutlery has been the 11th most commonly collected item from beaches and waterways during the ICC over the last 35 years, with 1,750,289 forks, knives and spoons recorded.

  - Globally, cutlery has been the 13th most collected item at the ICC, with 6,053,179 forks, knives and spoons recorded by volunteers worldwide since 1986.

  - In a survey conducted in the summer of 2021, 40% of Americans reported receiving packaged plastic cutlery with their takeout or delivery order, despite increasing opt-out options from food delivery apps. (SOURCE: Ocean Conservancy)

  - Nearly a quarter of Americans reported that they tend to dispose of plastic forks and spoons without using them; and in the same survey, 41% of respondents said that they did not want plastic forks and spoons included with their takeout or delivery orders, and 62% did not want plastic knives.

  - Cutlery is among the most harmful formats of plastics to marine life. Ocean Conservancy research found that plastic forks, knives and spoons are the number two most deadly form of marine debris (behind only fishing gear and tying with plastic bags) due to their prevalence and impact when ingested.

  - Straws and stirrers have collectively been the 7th most commonly collected item from beaches and waterways in the U.S. during the ICC over the last 35 years, with 4,940,864 recorded.

  - Globally, straws and stirrers have been the 5th most commonly collected item at the ICC, with 14,155,301 recorded by volunteers worldwide since 1986.

- The straws and stirrers collected globally by volunteers over the course of 35 years would stretch the entire length of the Himalayas.

- **PFAS** (per- and polyfluoroalkyl substances) – Sometimes referred to as "forever chemicals," these fluorinated compounds are associated with severe health impacts such as cancer, infertility, and endocrine disruption. (SOURCES: EPA, Society of Environmental Toxicology and Chemistry) When recycled, products with these chemicals contaminate the resulting recycled plastic with PFAS.
    - Examples: in plastic PFAS is used as a mold-release agent, in inks, and as manufacturing aids
    - In October 2021, California passed four bills regulating PFAS and related labeling in consumer products.

Why This Matters

- Increasing waste collection and recycling rates is critical to addressing the ocean plastics crisis. A study published in the journal *Science* in 2020 showed that to simply maintain current levels of plastic pollution entering the ocean annually (at the time, 8 million metric tons), plastic production and waste would need to be reduced by 25-40%; all countries would need to properly manage 60 – 99% of all their waste; and society would need to recover (i.e., clean up) 40% of the remaining plastics that do enter the environment. (SOURCE: Science, Ocean Conservancy)

- Cost effectiveness is one of the biggest challenges to increasing waste collection and recycling around the world. Ocean Conservancy's 2019 Plastics Policy Playbook found that banning certain single-use plastic items can reduce contamination of post-consumer waste streams and improve the economics of recycling. (SOURCE: Ocean Conservancy and Accenture)
    - According to Waste Management, the average contamination rate is approximately 25%, meaning that one in four items entering the recycling stream isn't actually recyclable.

- Eliminating these problematic materials can also reduce pollution in our ocean. After San Francisco banned EPS an audit revealed a 36% reduction in PS litter.