Source Reduction Reporting Guidance

Plastic Pollution Prevention and Packaging Producer Responsibility Act (the Act)

Department of Resources Recycling and Recovery (CalRecycle)

September 2, 2025

Disclaimer *– This guidance tool was developed by CalRecycle as a courtesy for informational and example purposes only. Use of this tool is optional and is not a regulatory requirement or legal advice. In the event of any conflict with this guidance tool or information herein and statutory or regulatory provisions, applicable statutory and regulatory provisions shall control. This tool and information herein are based on known facts and legal authority as understood by CalRecycle at the time of release. Any analysis, guidance, or other information herein may be subject to change based on changed facts or legal authority, actual or understood, subsequent to the publishing of this tool. Users are encouraged to seek the assistance of legal counsel to comply with applicable state law based on their pertinent facts and circumstances.*

After the formal adoption of regulations, CalRecycle will update this guidance. Additionally, this guidance does not provide information on which plastic components will be considered de minimis. Producers that are participants of the Producer Responsibility Organization, Circular Action Alliance (CAA), should consult with CAA on which items may be considered de minimis.

Purpose of This Document

This document provides guidance on how to estimate the amount of plastic covered material sold, offered for sale, or distributed in the state, including the number of plastic components and the weight of the plastic covered material. For both the source reduction baseline and source reduction reporting required under Public Resources Code (PRC) section 42057(c)(1)**,** two key metrics are used**:**

1. **Number of plastic components** of plastic covered material sold, offered for sale, or distributed in the state.
2. **Weight of plastic covered material** sold, offered for sale, or distributed in the state, **counting only the weight of the plastic** (i.e. excluding the weight of the nonplastic portions).

To help producers report this information accurately and consistently for source reduction reporting (PRC section 42057), this document provides the following information:

- **Part I:** Source Reduction Reporting
- **Part II:** Important Definitions and Concepts
- **Part III:** Guidance for Estimating Source Reduction Metrics
- **Part IV:** Examples

Abbreviations

- CalRecycle: California Department of Resources Recycling and Recovery
- CAA: Circular Action Alliance
- Department: California Department of Resources Recycling and Recovery
- Lb.(s).: Pound(s)
- Oz.: ounces
- PRC: Public Resources Code
- SRB: Source Reduction Baseline
- Ton(s): U.S. Short Ton(s)

Part I: Source Reduction Reporting

The source reduction baseline is the amount of plastic covered material sold, offered for sale, or distributed in the state during the 2023 calendar year. This includes both the weight of plastic covered material and the number of plastic components (PRC section 42057(b)).

Producers of covered material are required to set goals and report on both the weight of plastic covered material and the number of plastic components to measure source reduction progress. This reporting is part of every producer responsibility plan and annual report (PRC section 42057(c)).

When estimating the weight of plastic covered material for source reduction, only the weight of plastic should be included. The weight of any paper, metal, glass, or other nonplastic portions must be excluded).

Part II: Important Definitions and Concepts

The following definitions and concepts are important for reporting information related to source reduction. Source reduction goals apply to **plastic covered material**, which includes single-use plastic packaging (primary, secondary, and tertiary) and single-use plastic food service ware. This includes items made entirely of plastic as well as items made partially of plastic (e.g., a paper box with a plastic window). Refer to PRC section 42041(t) for the definition of plastic.

Component: An item of covered material that (1) has no physically distinct subparts, or (2) is a piece or subpart of an item of covered material that is distinct in its composition or function compared to other pieces or subparts.

Covered Material: PRC section 42041(e) defines covered material as single-use packaging and plastic single-use food service ware:

A. Single-use packaging that is routinely recycled, disposed of, or discarded after its contents have been used or unpackaged, and typically not refilled or otherwise reused by the producer.
    i. "Packaging" means any separable and distinct material component used for the containment, protection, handling, delivery, or presentation of goods by the producer for the user or consumer, ranging from raw materials to processed goods. "Packaging" includes [PRC section 42041(s)]:
        I. Primary Packaging: Sales packaging or primary packaging intended to provide the user or consumer the individual serving or unit of the product and most closely containing the product, food, or beverage.
        II. Secondary Packaging: Grouped packaging or secondary packaging intended to bundle, sell in bulk, brand, or display the product.
        III. Tertiary Packaging: Transport packaging or tertiary packaging intended to protect the product during transport.
        IV. Packaging components and ancillary elements integrated into packaging, including ancillary elements directly hung onto or attached to a product and that perform a packaging function, except both of the following:
            1. An element of the packaging or food service ware with a de minimis weight or volume, which is not an independent plastic component, as determined by the department.
            2. A component or element that is an integral part of the product, if all components or elements of the product are intended to be consumed or disposed of together.
B. Plastic single-use food service ware, including, but not limited to, plastic-coated paper or plastic-coated paperboard, paper or paperboard with plastic intentionally added during the manufacturing process, and multilayer flexible material. For

purposes of this subparagraph, “single-use food service ware” includes both of the following:

i. Trays, plates, bowls, clamshells, lids, cups, utensils, stirrers, hinged or lidded containers, and straws.
ii. Wraps, wrappers, and bags used in the packaging of food offered to customers by food service establishments.

Exclusions from the Definition of Covered Material [PRC section 42041(e)(2)]

A. Packaging used for any of the following products:
   i. Medical products and products defined as devices or prescription drugs, as specified in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Secs. 321(g), 321(h), and 353(b)(1)).
   ii. Drugs that are used for animal medicines, including, but not limited to, parasiticide products for animals.
   iii. Products intended for animals that are regulated as animal drugs, biologics, parasiticides, medical devices, or diagnostics used to treat, or administered to, animals under the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Sec. 301 et seq.), the federal Virus-Serum-Toxin Act (21 U.S.C. Sec. 151 et seq.), or the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136 et seq.).
   iv. Infant formula, as defined in Section 321(z) of Title 21 of the U.S. Code.
   v. Medical food, as defined in Section 360ee(b)(3) of Title 21 of the U.S. Code.
   vi. Fortified oral nutritional supplements used for persons who require supplemental or sole source nutrition to meet nutritional needs due to special dietary needs directly related to cancer, chronic kidney disease, diabetes, malnutrition, or failure to thrive, as those terms are defined as by the International Classification of Diseases, Tenth Revision, or other medical conditions as determined by the department.
B. Packaging used to contain products regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136 et seq.).
C. Plastic packaging containers that are used to contain and ship products that are classified for transportation as dangerous goods or hazardous materials under Part 178 (commencing with Section 178.0) of Subchapter C of Chapter I of Subtitle B of Title 49 of the Code of Federal Regulations.
D. Packaging used to contain hazardous or flammable products classified by the 2012 federal Occupational Safety and Health Administration Hazard Communication Standard (29 C.F.R. 1910.1200).
E. Beverage containers subject to the California Beverage Container Recycling and Litter Reduction Act (Division 12.1 (commencing with Section 14500)).
F. Packaging used for the long-term protection or storage of a product that has a lifespan of not less than five years, as determined by the department.
G. Packaging associated with products covered under the architectural paint recovery program established pursuant to Chapter 5 (commencing with Section 48700) of Part 7.
H. i. Covered material for which the producer demonstrates to the department that the covered material meets all of the following criteria:

I. The covered material is not collected through a residential recycling collection service.
II. The covered material does not undergo separation from other materials at a commingled recycling processing facility.
III. The covered material is recycled at a responsible end market.
IV. Until January 1, 2027, the producer annually demonstrates to the department that the material has had a recycling rate of 65 percent for three consecutive years. On and after January 1, 2027, the producer demonstrates to the department that the material has had a recycling rate at or over 70 percent annually, as demonstrated to the department every two years

ii. If only a portion of the covered material sold in or into the state by a producer meets the criteria of clause (i), only the portion of the covered material that meets the criteria of clause (i) is exempt from this chapter and any portion that does not meet the criteria is a covered material for purposes of this chapter.

De minimis Exclusions: Per PRC section 42041(s)(4)(A), material that is part of or directly connected to packaging but is of de minimis weight or volume is not itself packaging for purposes of the Act.

If a plastic component is considered de minimis, it should not be considered when estimating the weight of plastic covered material and number of plastic components. Producers participating in the Producer Responsibility Organization, CAA, should consult with CAA on how to apply de minimis exclusions.

Detachable component: A component that may be completely detached from all other components or material and is either of the following:

- Designed such that it may be detached by consumers during or after collection without the use of tools, substances, or nonmanual processes. It shall not be considered designed to be detached merely because it may become detached from all other components or material during processing.
- A component that is typically or necessarily detached through ordinary usage by the consumer before being discarded, regardless of whether the component is discarded attached to the other components.

Form: Characteristics of material other than its specific dominant material, such as shape, size, functionality, and performance. Forms are specific to Material Type.

Item: Either a single detachable component or a group of nondetachable components.

Material Class: Broad categorization of the dominant materials. There are six material classes: Glass, Ceramic, Metal, Paper/Fiber, Plastic, and Wood and Other Organic Materials.

Material Type: More specific categorization of the dominant material within a Material Class (e.g., aluminum is a Material Type within the Metal Material Class).

Plastic: A synthetic or semisynthetic material chemically synthesized by the polymerization of organic substances that can be shaped into various rigid and flexible forms and includes coatings and adhesives. “Plastic” includes, without limitation, polyethylene terephthalate (PET), high-density polyethylene (HDPE), polyvinyl chloride (PVC), low-density polyethylene (LDPE), polypropylene (PP), polystyrene (PS), polylactic acid (PLA), and aliphatic biopolyesters, such as polyhydroxyalkanoate (PHA) and polyhydroxybutyrate (PHB). “Plastic” does not include natural rubber or naturally occurring polymers such as proteins or starches. “Plastic” is defined in PRC section 42041(t).

If a plastic polymer is derived from human-made processes, it is not considered a naturally occurring plastic polymer even if it is derived from natural materials. For example, PLA synthesized from corn using bacterial conversion and other processes, resulting in the polymerization of lactic acid to PLA, is a human-made process that results in plastic derived from natural materials. The PLA would therefore not be considered a naturally occurring plastic polymer.

Plastic component: As defined in PRC section 42041(u), “plastic component” means any single piece of covered material made partially or entirely of plastic. A plastic component may constitute the entirety of the covered material or a separate or separable piece of the covered material. A piece or subpart of covered material gets counted as a plastic component if the piece or subpart is made partially or entirely of plastic.

A single plastic component is a piece or part of covered material that is any of the following: (1) a separable piece of covered material (e.g., untethered bottle cap) that is typically detached by a consumer through ordinary usage or designed to be detached by a consumer or during or after collection; or (2) a part of covered material that is distinct in type, form, or function of plastic from other connected or separable parts (e.g., a plastic label on a plastic jar of a different resin type).

Examples of plastic components include, but are not limited to: plastic label, plastic tape, plastic window, plastic handle, plastic safety seal, plastic utensils, plastic adhesive, plastic inks, plastic linings, plastic coatings, plastic meat trays, plastic valve, plastic pizza savers, plastic squeezable tubes, plastic straws, plastic stirrers, plastic bottle, plastic jug, plastic lid or cap, plastic bulb end, plastic zipper, plastic dispersions, plastic fasteners, plastic hang tab, plastic hook and loop tape, plastic bags, synthetic fabric bags, plastic thread, plastic hanger, plastic cold end coating, plastic elastic loops, plastic barriers, plastic layers, and plastic film wrap.

Source reduction: PRC section 42041(aj) defines “source reduction” as the reduction in the amount of covered material created by a producer relative to a baseline established pursuant to subdivision (b) of Section 42057. Methods of source reduction include, but are not limited to, shifting covered material to reusable or refillable packaging or a reusable product or eliminating unnecessary packaging.

“Source reduction” does not include either of the following:

(1) Replacing a recyclable or compostable covered material with a nonrecyclable or noncompostable covered material or a covered material that is less likely to be recycled or composted.

(2) Switching from virgin covered material to postconsumer recycled content.

Additionally, pursuant to PRC section 42057(a)(2)(B), no more than 8% of source reduction can be achieved through an alternative compliance formula developed by the Producer Responsibility Organization and subject to approval by the department. Source reduction goals specified in PRC section 42057 apply to **plastic** covered material.

Part III: Guidance for Reporting Source Reduction Metrics

A core concept of source reduction is the identification of "plastic components." A description of how to consider a plastic component is provided in Part II. This part provides additional detail on how to count the number of plastic components and measure the weight of plastic covered material. Examples of how to estimate weight of plastic covered material and weight of plastic components are provided in Part III.

How do you count plastic components?

In order to count the number of plastic components, each single plastic component must be considered, unless the plastic component is considered de minimis. Plastic components considered to be de minimis should not be included in the estimate of plastic components (PRC section 42041(s)(4)(A)).

A piece or subpart of covered material is counted as a plastic component if the piece is made partially or entirely of plastic. For example, a piece of covered material made mostly of paper with a plastic lining would count as a plastic component, if that plastic lining is not de minimis.

To count plastic components, follow these steps:

> **Step 1: Identify each detachable component**, meaning a component that is typically detached by a consumer during normal use, or designed to be detached by the consumer or during or after collection.
>
> **Step 2: For each detachable component, identify the number of plastic components.** To identify the number of plastic components, identify each subpart that contains plastic and is distinct with respect to its composition or function.
>
> Nondetachable groupings of multiple plastic subparts that have a consistent composition across the entire item and serve the same function should be counted as a single plastic component.
>
> For example, if a pouch is composed of two layers of different plastic resins laminated together, the pouch would be considered a single plastic component for that item because that multilayer plastic has a consistent composition and function across the entire pouch. If the pouch additionally had a plastic pour spout, the plastic pour spout would be considered an additional plastic component because it has a different composition and function from the multilayer pouch.
>
> **Step 3: Add together the number of plastic components from each detachable component** to get the total number of plastic components.

How do you measure the weight of plastic covered material for source reduction reporting?

An item of covered material may be made of both plastic and nonplastic materials. For source reduction reporting, only the weight of the plastic portion should be included. For example, if a piece of covered material is made of both metal and plastic, only the weight of the plastic portion should be reported.

> **Step 4: Add together the weight of each plastic component** identified previously (weight of plastic only) to estimate total weight of plastic covered material.

Part IV: Examples

Disclaimer: The hypothetical examples and numbers provided here are for illustrative purposes only and are not intended to reflect product-specific data. In real-world applications, covered materials may vary in material composition or in the number of plastic components or weight of plastic covered material. Components marked as “not necessary to report” are assumed to contain no plastic.

Example #1: Deodorant container

Step 1: Identify each detachable component

- Main plastic container
- Plastic outer cap: 1 plastic component
- Plastic inner cap: 1 plastic component

Step 2: For each detachable component, identify the number of plastic components

- Main plastic container
  - Main plastic container (including barrier and finishing layers): 1 plastic component
  - Base/dial with nondetachable inner screw: 1 plastic component
  - Inner platform: 1 plastic component
  - Labels (front and back, including adhesive used to attach labels and ink used on label): 1 plastic component
    - Assumption: Both labels are nondetachable, have the same composition and function.
- Plastic outer cap: 1 plastic component
- Plastic inner cap: 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Main plastic container: 4 plastic components
- Plastic outer cap: 1 plastic component
- Plastic inner cap: 1 plastic component

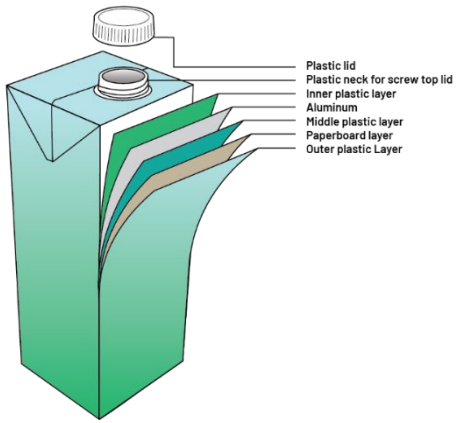
Total plastic components per unit: 6 plastic components per deodorant container

Step 4: Add together the weight of each plastic component

- Main plastic container (including barrier and finishing layers): 1.02 oz.
- Base/dial with nondetachable inner screw: 0.3 oz.
- Inner platform: 0.05 oz.
- Main container labels (front and back): 0.115 oz.
- Plastic outer cap: 0.16 oz.
- Plastic inner cap: 0.05 oz.

Total plastic covered material by weight per unit: 1.695 oz. (0.106 lbs.) per deodorant container

Example #2: Aseptic carton with plastic screw cap



Step 1: Identify each detachable component

- Plastic screw top
- Carton

Step 2: For each detachable component, identify the number of plastic components

- Plastic screw cap: 1 plastic component
- Carton
  - Carton body (including plastic layers, adhesives, and inks): 1 plastic component
  - Plastic neck for screw cap: 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Plastic screw cap: 1 plastic component
- Carton: 2 plastic components

Total plastic components per unit: 3 plastic components per aseptic carton with plastic cap

Step 4: Add together the weight of each plastic component

- Detachable plastic screw cap: 0.08 oz.
- Plastic neck for screw cap: 0.08 oz.
- Carton body (weight of three polyethylene layers, adhesives, and inks only): 0.372 oz.

Total plastic covered material by weight per unit: 0.532 oz. (0.033 lbs.) per aseptic carton with plastic cap

Example #3: Glass bottle with a plastic label and tamper-proof ring

Step 1: Identify each detachable component

- Glass bottle
- Plastic screw cap

Step 2: For each detachable component, identify the number of plastic components

- Glass bottle
  - Glass bottle (including plastic cold end coating): 1 plastic component
  - Inner plastic insert/spout: 1 plastic component
  - Nondetachable plastic tamper proof ring: 1 plastic component
  - Plastic labels (front and back, including adhesive used to attach labels and ink used on label): 1 plastic component
    - Assumption: Both labels are nondetachable and have the same composition and function.
- Plastic screw cap: 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Glass bottle: 4 plastic components
- Plastic screw cap: 1 plastic component

Total plastic components per unit: 5 plastic components per glass bottle with a plastic label and tamper-proof ring

Step 4: Add together the weight of each plastic component

- Glass bottle (weight of cold end coating only): 0.016 oz.
- Inner plastic insert/spout: 0.8 oz.
- Nondetachable plastic tamper proof ring: 0.08 oz.
- Plastic labels (including adhesives and ink for the label): 0.016 oz.
- Plastic screw cap: 0.32 oz.

Total plastic covered material by weight per unit: 1.26 oz. (0.079 lbs.) per glass bottle with a plastic label and tamper-proof ring

Example #4: Plastic, stand-up barrier pouch with perforated tear-notches and resealable zipper closure

Step 1: Identify each detachable component

- Main plastic film pouch
- Detachable film pouch top

Step 2: For each detachable component, identify the number of plastic components

- Main plastic film pouch
  - Main plastic film pouch (including plastic layers, plastic barrier layers, plastic tie layers, plastic inks, and plastic adhesives): 1 plastic component
  - Zipper: 1 plastic component
- Detachable film pouch top: 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Main plastic film pouch: 2 plastic components
- Detachable film pouch top: 1 plastic component

Total plastic components per unit: 3 plastic components per plastic stand-up barrier pouch

Step 4: Add together the weight of each plastic component

- Main plastic film pouch (including plastic layers, plastic barrier layers, plastic tie layers, plastic inks, and plastic adhesives): 0.051 oz.
- Zipper: 0.1 oz.
- Detachable film pouch top: 0.0051 oz.

Total plastic covered material by weight per unit: 0.1561 oz. (0.0098 lbs.)

Example #5: Plastic bottle with a paper label

Step 1: Identify each detachable component

- Plastic container
- Plastic lid
- Plastic foam seal

Step 2: For each detachable component, identify the number of plastic components

- Plastic container
  - Plastic container: 1 plastic component
  - Paper label (including plastic adhesive and plastic ink): 1 plastic component
    - Assumption: The plastic in the adhesive and ink are required for reporting, however the paper, as a nonplastic component, is not counted toward the plastic components.
- Plastic lid: 1 plastic component
- Plastic foam seal (including plastic adhesive and plastic ink): 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Plastic container: 2 plastic components
- Plastic lid: 1 plastic component
- Plastic foam seal: 1 plastic component

Total plastic components per unit: 4 plastic components per plastic bottle with paper label

Step 4: Add together the weight of each plastic component

- Plastic container: 0.35 oz.
- Paper label (weight of plastic adhesive and plastic ink only): 0.002 oz.
- Plastic lid: 0.1 oz.
- Plastic foam seal: 0.052 oz.

Total weight of plastic covered material per unit: 0.504 oz. (0.032 lbs.) per plastic bottle with paper label

Example #6: Cereal Box

Step 1: Identify each detachable component

- Paperboard box
- Plastic inner bag

Step 2: For each detachable component, identify the number of plastic components

- Paperboard box: (including plastic coatings, plastic adhesive, and plastic ink): 1 plastic component
  - Assumption: The plastic in the adhesive and ink are required for reporting, however the paper, as a nonplastic component, is not counted toward the plastic components.
- Plastic inner bag (including all plastic layers and adhesives): 1 plastic component

Step 3: Add together the number of plastic components from each detachable component

- Paperboard box: 1 plastic component
- Plastic inner bag: 1 plastic component

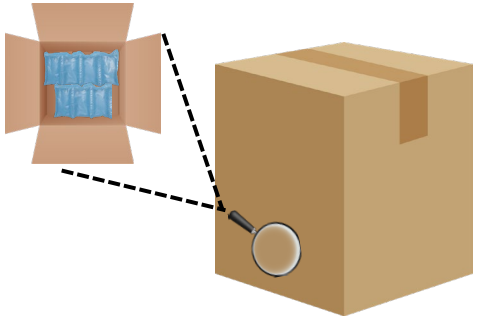
Total plastic components per unit: 2 plastic components per cereal box

Step 4: Add together the weight of each plastic component

- Paperboard box (including plastic coatings, plastic adhesive, and plastic ink): 0.003 oz.
- Plastic inner bag: 0.101 oz.

Total weight of plastic covered material per unit: 0.104 oz. (0.0065 lbs.) per cereal box

Example #7: Corrugated cardboard shipping box containing plastic air pillows, and sealed with tape



Step 1: Identify each detachable component

- Corrugated cardboard shipping box
- Perforated plastic air pillows

Step 2: For each detachable component, identify the number of plastic components

- Corrugated cardboard shipping box
  - Cardboard box (including plastic adhesive between cardboard layers): 1 plastic component
    - Assumption: The plastic in the adhesive used to construct the corrugated box is required for reporting, however the cardboard box, as a nonplastic component, is not counted toward the plastic components.
- Plastic tape (2 discontinuous pieces including the plastic backing and plastic adhesive): 2 plastic components
- Perforated plastic air pillows (7 pillows): 7 plastic components
  - Assumption: Air pillows separated by perforations, whether the air pillows remain attached or not, are each considered a plastic component

Step 3: Add together the number of plastic components from each detachable component

- Corrugated cardboard shipping box (including tape): 1 plastic components
- Plastic tape (2 discontinuous pieces including the plastic backing and plastic adhesive): 2 plastic components
- Perforated plastic air pillows: 7 plastic components

Total plastic components per unit: 10 plastic components per corrugated cardboard shipping box containing plastic air pillows

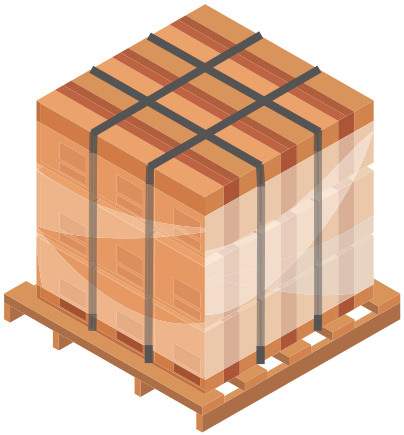
Step 4: Add together the weight of each plastic component

- Corrugated cardboard shipping box (including plastic inner adhesive on box): 0.001 oz.

- Plastic tape (2 discontinuous pieces including the plastic backing and plastic adhesive): 0.0009 oz.
- Perforated plastic air pillows: 0.07 oz.

Total weight of plastic covered material per unit: 0.0719 oz. (0.0045 lbs.) per corrugated cardboard shipping box containing plastic air pillows

Example #8: Wooden pallet with plastic stretch film and plastic strapping



Step 1: Identify each detachable component

- Plastic stretch film
- Plastic pallet straps
- Wooden pallet

Step 2: For each detachable component, identify the number of plastic components

- Plastic stretch film: 1 plastic component
  - Assumption: One continuous piece of film was used.
- Plastic pallet straps: 4 plastic components
  - Assumption: Four separate straps were used.
- Wooden pallet: 0 plastic components
  - Assumption: Wooden pallet has no plastic adhesive or other plastic subparts.

Step 3: Add together the number of plastic components from each detachable component

- Plastic stretch film: 1 plastic component
- Plastic pallet straps: 4 plastic components

Total plastic components per unit: 5 plastic components per wood pallet with plastic stretch film and plastic strapping

Step 4: Add together the weight of each plastic component

- Plastic stretch film: 4.8 oz.
- Plastic pallet straps: 1.6 oz.
- Wood pallet: 0 oz.

Total weight of plastic covered material per unit: 6.4 oz. (0.4 lbs.) per wood pallet with plastic stretch film and plastic strapping