

# Apeel Ingredient Standards

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## Guiding Principles

Apeel is a company on a mission to fight food waste and create a more abundant, participatory, and sustainable food system for people and the planet. In order to accomplish this mission, we have identified the following standards to guide how we select materials that will be used in commercial formulations. As a company rooted in innovation and the development of disruptive technologies, we will continue to refine these standards based on the best available science and a data-driven approach to food system sustainability.

## Food to Protect Food

Apeel looks for materials that already exist in the natural world to create our products. This means that our ingredients<sup>1</sup> are either known to be and regulated as food ingredients, or that they exist as a component of plants or natural materials that are consumed as part of the human diet. In all cases, ingredients are rigorously assessed to ensure they are safe to eat when used as intended and produced according to Good Manufacturing Practices (GMPs).

## Found in Nature

Apeel focuses its product development on working with nature, rather than apart from it. **When it comes to creating our formulations, we carefully select raw materials<sup>2</sup> that are already known to exist in the natural world.** In some cases, we utilize components of plants or other natural materials directly. In other instances, we have identified a more efficient path to a nature-identical<sup>3</sup> ingredient with a lower environmental footprint as compared to extracting the ingredient directly from plant feedstocks. **Regardless of production method, plants and natural materials are used as the starting material for ingredients in Apeel's products or are molecularly identical to those that exist in nature today.**

## Plant-based / Plant-derived

All ingredients in Apeel formulations are sourced from plants or other natural sources, such as minerals. In some cases, other inputs, such as processing aids or solvents, are used to improve the safety or efficiency of the manufacturing process. These additional inputs (<5% of ingredients by weight) are authorized for and have an established history of safe use in food production. **Apeel's products are plant-based with greater than 95% of the ingredients in the finished products derived from plant material. Apeel never sources ingredients from animal origins.**

## Life-Cycle Environmental Footprint

When considering new ingredients and their impact on manufacturing processes and other downstream outcomes, the **life-cycle environmental impacts are evaluated to ensure that both the environmental benefits of product performance and the environmental impacts of the production stage are taken into account.** Apeel will seek to continuously improve the environmental profit margin of its products over time through these evaluations.

## Feedstock Selection

Apeel considers feedstock selection to be a long-term strategy, requiring continuous evaluation, research, and supplier selection that are aligned with decreasing the environmental footprint of our products while maintaining the integrity of Apeel's Supplier Responsibility Program. **We evaluate the social and environmental risks associated with a feedstock, its industry, and its management practices.** A different set of due diligence practices (i.e., auditing, additional certifications, etc.) are employed during the sourcing process depending on the degree of risk assigned to a given feedstock. Apeel strives to prioritize "low risk" feedstocks;<sup>4</sup> however, in the event that "low risk" feedstocks are not available, Apeel either:

1. Procures materials qualified in accordance with existing voluntary sustainability standards or
2. If voluntary sustainability standards do not exist for the feedstock of interest, Apeel conducts audits in conjunction with its first-tier suppliers to trace its "higher risk" feedstock supply chains as far upstream as possible to evaluate the material and supplier in accordance with Apeel's Supplier Responsibility Program guidelines.

Many of the ingredients that are utilized in Apeel formulations are feedstock agnostic, meaning, they can be found in many, if not all, varieties of plants. Our feedstocks and the ingredients created from them are always rigorously assessed to ensure that Apeel products<sup>5</sup> are safe to eat when used as intended.

## Hazardous Ingredients

Hazardous substances are generally considered to be those that may cause significant harm to people or the environment. **Apeel products do not contain hazardous ingredients<sup>6</sup> that will cause harm to people or the environment within the context of their intended use.** Further, because the safety of a given product is largely dependent on how it is handled and used, **Apeel maintains a robust Environmental Health & Safety Program to ensure all Apeel staff are informed of best practices for handling materials whether used in research and development or commercial applications.**

## Supply Chain Traceability

**To holistically measure the environmental footprint of Apeel products, Apeel must account for all inputs used and outputs created in the ingredient's supply chain.** In addition, traceability is essential for ensuring compliance with Apeel's Supplier Responsibility Program. Therefore, Apeel seeks to collect primary environmental and social data as far upstream in the supply chain as possible. At a minimum, Apeel requires its first-tier suppliers to provide the ingredient's country of origin and Apeel evaluates the inputs used and outputs generated during ingredient manufacturing.

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<sup>1</sup> "Ingredients" means the primary components of Apeel finished products, including the active and inert ingredients that serve a technical function in either the Apeel formulation itself or Apeel-treated fruits and vegetables.

<sup>2</sup> Precursors to final ingredients utilized in Apeel products.

<sup>3</sup> Materials that are chemically equivalent and indistinguishable from that found in nature, but may be synthesized rather than extracted from natural sources.

<sup>4</sup> Apeel has set an aggressive compliance target of 95%. This means that 95% of the ingredients in our finished products comply with Apeel's Feedstock Selection Standard.

<sup>5</sup> Apeel products that are applied in food and agricultural applications.

<sup>6</sup> "Hazardous ingredients" are materials that may cause significant or unreasonable harm to people or the environment in the context of their intended use in Apeel formulations. These are generally materials that are known to be flammable, carcinogens, mutagens, exhibit critical toxicity to people or the environment, or highly reactive with air or water.