

The Natural Route to Consumer Confidence

As the nutritional supplement sector continues to flourish, the desire for tablet and capsule products that have naturally derived, familiar and easily recognisable ingredients is growing. In response, manufacturers are looking for efficient and consistent production practices that deliver label-friendly finished goods and, at the same time, meet complex regulatory requirements.

If you are a brand manager or research and development leader, you know that delivering a reliable and high-quality product that consumers want — and trust — is critical to the success of your business. However, there are both subtle and stark differences that can affect consumer choice. Label-friendly ingredients are increasingly becoming essential; equally, the visual appearance of products, such as shape, size and colour, all play a significant role in distinguishing your product and gaining consumer preference.

Although clean labels are growing as a result of consumer opinion, the term is not specifically defined or regulated. A product is more likely to be considered to be clean label if the ingredients are fewer in number, recognisable, pronounceable, naturally derived (rather than artificial), non-GMO and sustainable.

Overcoming Development and Manufacturing Challenges

Tableting is a popular method of manufacturing nutritional products as it's efficient and cost-effective. Tablets are easy to coat, package and transport, and they have a long shelf-life. Yet, owing to the types of ingredients used in these items, nutritional and dietary supplement manufacturers are commonly using compounds with unpleasant tastes and odours; they can also be difficult to compress and sensitive to atmospheric moisture.

In addition, formulators frequently experience challenges with fragile tablet cores that break easily and shelf-life implications owing to moisture- and oxygen-sensitive ingredients. Producers are looking to overcome these hurdles with more innovative ingredients that also benefit

from efficient and consistent manufacturing performance while meeting increasing consumer demand for label-friendly ingredients and the complex regulatory requirements of the food space.

With increasing pressure from consumers for label-friendly ingredients, there is a continuing drive to eliminate the use of titanium dioxide (TiO₂) in products that are regulated as food. For many years, the industry has relied on TiO₂ as an opacifier in tablet film coatings. It provides a white finish that covers mottled cores, making the pills more marketable while protecting active ingredients from degradation. The European Union has made a ruling against the continued use of E171 (TiO₂) as a food additive.

To remain competitive and satisfy consumers, manufacturers are looking to comply with this regulation by using sustainable ingredients that are label friendly and, at the same time, do not compromise product quality, manufacturing efficiency or cost-in-use.

Supplier companies need to source best-in-class excipients and fully formulated label-friendly coatings so that nutritional manufacturers can both reduce complexity and expedite time-to-market, all while delivering high-quality products that consumers value and trust. This is a great opportunity to explore new coatings that will serve your brand for many years with no risk of regulatory obstacles.

Manufacturability

In general, a product with good manufacturability is one that can be produced using standard processes and equipment with minimal



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modifications. The core formulation should also consider the materials, tolerances and methods that will be used in production to ensure that the product can be manufactured consistently and with high quality. With innovation emerging in this space, the replacement of multiple core ingredients with specialist materials enables process simplification by way of easier flowing blends and more convenient ejection during the direct compression of tablets.

Starting with the tablet core, naturally derived excipients such as Nutracore Label Friendly Excipients provide manufacturers with the compressibility, flow and lubricity that makes tablet processing easy; furthermore, specialist excipients such as pregelatinised starches help to stabilise the core by scavenging moisture and reducing ingredient degradation. By using carefully selected materials from commonly used food ingredients, or approved food additives that meet regulatory requirements, it is easy to confidently support clean label claims.

Trusted and Preferred Brands

When it comes to branding, it is essential to consider the colour and finish of your tablet. Colour is extremely important from a marketing perspective because it increases brand recognition by up to 80%. The tablet finish provides the consumer with high quality and recognisable products they can trust; and with so much choice available, appearance is critical.

Coatings also play a functional role in shielding the consumer from unpleasant tastes and odours while protecting the tablet from environmental factors such as heat and light, which can affect the stability of the core ingredients. Nutrafinish Dietary Supplement Coatings from Colorcon provide food supplement manufacturers with the functional and aesthetic benefits of film coating while addressing increasing consumer demand for non-synthetic, label-friendly and TiO₂-free ingredients. Coating nutritional tablets serves several purposes, including

- masking unpleasant tastes or odours as some ingredients — such as garlic or vitamins, particularly those that are water-soluble — can have a bitter or unpleasant taste; coating the tablets can help to mask this taste and make the tablets easier to swallow
- protecting the ingredients from degradation caused by sensitivity to moisture, light or air; coating the tablets can help to protect these elements and ensure their potency
- improving stability and preventing reactions with other ingredients in the tablet, which could potentially affect their effectiveness.

Coating tablets helps to improve their palatability, stability and effectiveness, which makes them more appealing to consumers and improves their overall quality.

Performance And Consumer Trust

As manufacturers look for more efficient and consistent manufacturing performance for products, they also need to meet consumer and regulatory demands. You need access to a reliable supplier with technical and regulatory knowledge to support the development of a finished nutritional or dietary supplement product with the competitive edge required to drive your business growth.

Colorcon helps the nutraceutical industry to meet the clean label challenge and address consumer appeal by providing specially formulated tablet coatings and core excipients through the Nutra Natural Advantage product line — fully supporting market and development needs to create a better customer experience. From core to coating, Colorcon provides materials that are carefully selected to meet regulatory requirements and provide excellent alternatives to fulfil clean label claims.

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