

SUCROSE BENZOATE A Bio-Based, Non-Phthalate Plasticizer with Processing Advantages

Sucrose Benzoate is gaining attention as a bio-based, non-phthalate plasticizer component for PVC plastisol systems. Its value lies not only in sustainability positioning, but also in practical processing and long-term performance advantages that are increasingly important for indoor PVC applications.

Bio-Based and Non-Phthalate

Sucrose Benzoate is derived from renewable raw materials, using sucrose as its core molecular structure. It contains no phthalates and supports the transition toward more environmentally responsible plasticizer systems in PVC. This makes it particularly relevant for applications where phthalate reduction or elimination is a customer or regulatory objective.

Environmentally Responsible Performance

Sucrose Benzoate offers a combination of properties that support low-emission PVC formulations:

- Very low volatility
- Low odor
- Reduced migration compared with many conventional plasticizers

These characteristics are well suited to indoor PVC products where air-quality and emission performance are important.

Clear, Crystalline Plasticizer

As a crystalline solid plasticizer, Sucrose Benzoate dissolves into plastisol formulations under heat, contributing to:

- Good optical clarity
- Low fogging tendency
- Clean surface appearance in finished coatings

This makes it suitable for decorative and visible PVC layers.

Solid Plasticizer – Handling and Dosing Advantage

Unlike liquid plasticizers, Sucrose Benzoate is supplied in solid form. When micronised, it offers clear processing benefits:

- Accurate and uniform dosing
- Consistent dispersion in plastisol systems
- No need for liquid pumping, heated tanks, or spill-control systems
- Simplified storage and handling

For processors familiar with powder handling, this allows precise formulation control without additional liquid-handling infrastructure.

Thermal Stability in Plastisol Processing

Sucrose Benzoate is thermally stable within typical PVC plastisol curing temperatures. Its low volatility minimizes loss during heat processing, supporting consistent long-term performance in finished products.

Regulatory Perspective

Sucrose Benzoate is referenced in the U.S. FDA Code of Federal Regulations under 21 CFR 175.105 (Adhesives) for indirect food-contact applications, subject to specific conditions. While this reference applies to adhesive uses, it indicates that Sucrose Benzoate has been evaluated for

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regulated indirect food-contact applications. As with all plasticizers, suitability for any specific PVC product must be confirmed based on formulation and intended use.

Where It Delivers the Most Value

Sucrose Benzoate is best suited for PVC plastisol applications such as:

- Indoor wallcoverings
- PVC flooring surface layers
- Artificial leather and coated fabrics
- Decorative indoor PVC films
- Sustainability-focused plastisol products

Its role is to enhance permanence, reduce emissions, and simplify handling, rather than to replace commodity plasticizers.

Month of Creation : Dec 2025

Month of Review : Dec 2027

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