



Driven by expertise

Revolutionizing Bottle Recycling by Enabling PET Closures with Innovative Additive Technology

For more information,
please contact:

Sukano AG

Fabienne Müller
Communication Manager

media@sukano.com

Schindellegi, Switzerland, October 2, 2025 – In a major step toward closing the loop on the entire PET bottle recycling, Sukano announces a breakthrough additive masterbatch package that addresses a long-standing industry gap: the technical feasibility of producing recyclable PET closures. This innovation enables caps to be recycled within the same recycling stream as clear PET bottles, unlocking true circularity.

PET bottles are the most widely recycled plastic packaging and represent the largest global source of high-quality recycled PET. Yet until now, one critical component has long remained outside the circular loop: the cap. Historically made from polypropylene (PP) or high-density polyethylene (HDPE), caps have been a multimaterial challenge. Because their material differs from the PET bottle itself, they must be separated during the recycling process, preventing full bottle-to-bottle recyclability.

Sukano developed an additive package that allows the production of monomaterial PET or rPET caps that can be recycled seamlessly with the bottle. It eliminates the need to separate caps from bottles during recycling, achieving new efficiencies. With caps comprising up to 10% of bottle weight, this unlocks thousand tons of additional bottle-grade PET for circular reuse. The additive package is compatible with both thermoforming and injection molding processes, enabling customers to transition to monomaterial bottle solutions without changing their existing production setup.

Testing to ensure Recyclability, Food Compliance, and Safety

Sukano validated the recyclability of each additive in their in-house recyclability laboratory according to the Tray Circularity Evaluation Platform (TCEP) and European PET Bottle Platform (EPBP) test protocols at concentrations well above industry norms. While the additive is typically used at 1-2%, in-house tests were conducted at a concentration of up to 5% with up to 50% recycled content.

page 1 / 2



Driven by expertise

For more information,
please contact:

Sukano AG

Fabienne Müller
Communication Manager

media@sukano.com

Testing according to the TCEP test protocol for thermoforming applications and EPBP test protocols for PET closures demonstrated that there is no impact on color, haze, and IV, fulfilling the technical requirements for the additives to be used in the clear PET bottles recycling stream. Design for Circularity is at the core of Sukano's innovation principles, therefore the additive accumulation and multiple recycling loops were also assessed and confirmed no disruption to the existing clear PET bottles recycling stream.

The additive formulation was engineered with safety as a core principle, featuring the absence by design of any substances of concern. Non-Intentionally Added Substances (NIAS) screening was conducted by a third-party laboratory using generally recognized scientific methods and evaluated in accordance with internationally accepted risk assessment principles to ensure that any potential consumer safety risks that may arise from the migration of these substances are effectively mitigated. This guarantees compliance with the most stringent food safety and packaging regulations worldwide.

About Sukano

Sukano is a global specialist in the development and production of additive and color masterbatches and compounds for polyesters, biopolymers, high-temperature polymers, and specialty resins. The company is driven by expertise and devotes its technical knowledge to developing innovative products and highly specialized solutions that go into packaging, consumer durables, building and construction, healthcare and fibers.

The pioneering and entrepreneurial spirit that the company was founded upon continues to this day. The emphasis on partnerships and collaborations that catalyze change and drive sustainable business models and innovative products is at the heart of this effort.

For more information, visit www.sukano.com.

page 2 / 2