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NOVEL BIO-BASED LIQUID TACKIFIER FOR FOOD CONTACT ADHESIVE APPLICATIONS

Food safety is a key concern globally and an essential driver in the demand for food-safe packaging and materials with food contact. The food packaging industry is heavily regulated and under constant scrutiny from regulatory bodies and consumer organizations.

Adhesives have applications in a wide variety of food packaging, where they function to maintain the integrity of the packaging during its lifetime. Adhesives are used in flexible packaging, cardboard and corrugated board as well as the label containing the essential consumer information. Since the adhesive may come in contact with the packaged food, the adhesive is subject to strict regulations regarding the migration of its components into the food.

Mineral oil hydrocarbons, consisting mainly of mineral oil saturated hydrocarbons (MOSH) and mineral oil aromatic hydrocarbons (MOAH), are used in a variety of applications ranging from adhesives and plastics to wax paper and board. These substances are considered a concern for food contact applications due to the potential toxic properties and bioaccumulation. Consequently, companies are increasingly looking for low migration alternatives that do not contain MOSH and or MOAH components.

This paper will focus on Kraton's novel, bio-based technology platform that received ISEGA approval in adhesive formulations. The platform enables replacement of the mineral oil hydrocarbon in adhesive formulations. We will present the low migration of Kraton's new liquid tackifier in pressure-sensitive adhesive (PSA) formulations. It will be demonstrated how this platform technology allows flexible formulation due to a tunable temperature (T_g) range, while not compromising on adhesion and cohesion performance.