

Eastman Sustane™ SAIB and ester gum blends increase turbidity in beverages.

Sustane™ SAIB is a density-adjusting weighting agent used in beverages, flavor enhancers, and premixes that contain essential flavoring oils. SAIB is produced by the controlled esterification of natural sugar, purified by molecular distillation, and is available neat and in lower viscosity blends.

- SAIB FG
- SAIB CO (*citrus oil terpenes*)
- SAIB ET-10 (*ethanol*)
- SAIB MCT (*medium chain triglycerides*)

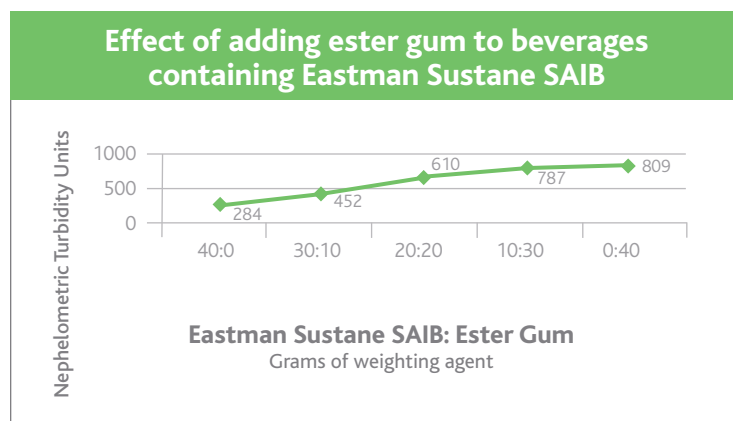
Some of the advantages of Sustane SAIB include:

- High specific gravity
- Flavorless and odorless at typical use levels
- Readily soluble in fats and oils
- Compatible with other weighting agents
- Cleared for food additive use in more than 70 countries

Sustane SAIB can be utilized in applications where essential flavoring oils are dispersed in a water-based solution. The final solution will be cloudy in appearance which is preferred in beverages containing essential oils. The desired intensity of turbidity can be controlled by many factors such as:

- Added juice
- Amount of flavoring oil
- Clouding agent
- Particle size
- Weighting agent used

When using Sustane SAIB, the level of turbidity can be increased through the use of glycerol esters of wood rosin (ester gum). The following graph demonstrates the increase in turbidity as the ratio of ester gum to SAIB is increased. Ester gum can be dissolved in flavoring oils prior to adding SAIB or in SAIB that has been heated to approximately 90°C. The blend can then be used to prepare a beverage emulsion.



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