

EASTMAN

**Your flavors.
Our solutions.**

*Organic intermediates
for the beverage market.*



Here's to your **success.**

The beverage market is creative, competitive, and challenging. Regulators, investors, the media, and consumers alike monitor ingredients and processes.

Rightfully so.

While safety and health are essential, taste and appearance remain paramount to a beverage's success. As the industry moves away from brominated vegetable oils (BVO), it needs viable alternative weighting agents. Without weighting agents, flavoring oils can separate from water, adversely affecting both taste and appearance.

Worldwide, the beverage industry has trusted Eastman to produce the ingredients they need, including:

- Eastman Sustane™ SAIB
- Eastman ester gum 8WA-M rosin ester
- Probenz™ sodium benzoate



A splash of innovation.

As a ready-to-blend weighting agent, Eastman Sustane™ SAIB provides significant processing and aesthetic benefits for the beverage market. The enhanced weighting agent prevents the oil-soluble ingredients and water in beverages like fruit juices, energy drinks, carbonated soft drinks, liquid water enhancers, and malt beverages from separating during storage.

Advantages include:

- Broad regulatory clearances
- High purity
- Readily soluble in flavoring oils
- Flavorless and odorless at typical beverage levels
- Oxidative and hydrolytic stability

Eastman Sustane SAIB CO food grade, kosher

Sustane CO is a free-flowing liquid with a viscosity of less than 4,000 cP at room temperature. It does not require heating and should be added directly to flavoring oils.

Property*	Typical value, units
Form (at 25°C)	Pourable liquid
Citrus oil terpenes	9%–11%
Density (at 25°C)	1.1 kg/m ³
Flash point (Tag closed cup)	143°C (290°F)
Viscosity (at 25°C)	3,000 cP, approx.
Acid number (mg KOH/g)	0.2 max.
Color Pt-Co (D 1209)	200 max.

* Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

Eastman Sustane SAIB, food grade, kosher

Sustane food grade, kosher is a high-purity distilled product that is odorless and tasteless at levels used in beverages. A stable, viscous liquid, it is used primarily in citrus beverages as a weighting agent or flavor emulsion stabilizer to prevent separation of essential citrus oils. It is produced by the controlled esterification of natural sugar with acetic and isobutyric anhydrides and is provided as a kosher product.



Property*	Typical value, units
Form	Viscous liquid
Refractive index	1.454 n (20°C/D)
Density (at 25°C)	1.146 kg/m ³
Flash point (Cleveland open cup)	260°C (500°F)
Decomposition temperature	288°C (550°F)
Viscosity, Brookfield	
at 30°C	100,000 cP, approx.
at 100°C	105 cP, approx.
at 160°C	16 cP, approx.
Acid number (mg KOH/g)	0.2 max.
Color Pt-Co (D 1209)	200 max.

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Eastman Sustane advantages

- Flavorless
- Readily soluble in fats and oils
- High specific gravity and ease of cleanup

Eastman Sustane SAIB ET-10 food grade, kosher

Sustane ET-10 is a low-viscosity blend of food grade SAIB and 10% ethanol, primarily used as a weighting agent in beverages. The low viscosity of Sustane ET-10 provides a pourable liquid that can be added directly to flavoring oil without heating.

Property*	Typical value, units
Form (at 25°C)	Pourable liquid
Ethyl alcohol	9%–11%
Density (at 25°C)	1.1 kg/m ³
Flash point (Setaflash closed cup)	28°C (82°F)
Viscosity (at 25°C)	1,000 cP, approx.
Acid number (mg KOH/g)	0.2 max.
Color Pt-Co (D 1209)	200 max.

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Eastman Sustane SAIB MCT food grade, kosher

Sustane MCT is a weighting agent designed for formulators who need improved handling traits, enhanced cloud properties, and taste neutrality in beverages. It is a blend of food grade medium chain triglycerides (MCT) and SAIB that pours readily at room temperature and increases the flavor stability and turbidity of the beverage. It dissolves rapidly in flavoring oils and solvents, is resistant to air oxidation, and will not discolor or develop off-flavors during long-term storage. Due to its low viscosity, Sustane MCT can be easily added at common operating temperatures and conditions.

Property*	Typical value, units
Form (at 25°C)	Pourable liquid
Medium chain triglycerides	18%–22%
Density (at 25°C)	1.1 kg/m ³
Flash point (Tag closed cup)	>99°C (>210°F)
Viscosity (at 25°C)	5,000 cP, approx.
Acid number (mg KOH/g)	0.3 max.
Color Pt-Co (D 1209)	200 max.

* Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

NOTE: If Sustane MCT is stored in accordance with the Safety Data Sheet, in its original unopened Eastman container, protected from extreme heat and humidity, it should conform to sales specifications for 36 months from the date of manufacture. Eastman recommends first-in, first-out inventory practice.



**Probenz™ SG sodium benzoate,
food grade, kosher**

**Probenz SP Powder sodium benzoate,
food grade, kosher**

**Probenz SP extra dry sodium benzoate,
food grade, kosher**

Typically used at 0.1%, Probenz serves as a reliable preservative in acidic conditions (pH < 4.5). It is also beneficial in personal care and pharmaceutical applications.

Probenz sodium benzoate

Property*	Typical value, units
Appearance	Granular, flaky powder or fine powder
Bulk density	
SG sodium benzoate	0.7 g/cm ³ (44 lb/ft ³)
SP powder sodium benzoate	0.287 g/cm ³ (18 lb/ft ³)
Melting point	>300°C
Molecular weight	144.11
pH	
Granular (1% aqueous solution)	6.5–8.0
Powder (1% aqueous solution)	6.5–8.0
Solubility (in cold or hot water)	Readily soluble
Specific gravity (at 25°C/25°C)	1.44

* Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

Eastman ester gum 8WA-M resin, kosher

Ester Gum 8WA-M is a pale, thermoplastic glycerol ester of rosin. It is produced by means of a steam-stripping process that yields a low-odor resin suitable for use in beverage applications. This resin is produced from glycerol of nonanimal origin and gum rosin harvested from pine trees. Soluble in essential citrus oils and esters, it is recommended for use as a clouding and weighting agent for citrus-flavored nonalcoholic beverage concentrates.

Property*	Typical value, units
Acid number (mg KOH/g)	5
Ring and ball softening point (ASTM E 28)	85°C
Color, Gardner†	4+
Taste test (5% in water)	No flavor
Appearance	Crystalline solid
Description, base resin	Rosin

* Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

† 50% resins solids in toluene or xylene

All kosher products produced by Eastman are manufactured under rabbinical supervision in full accordance with Jewish dietary law.



To your safety.

Sucrose acetate isobutyrate is cleared for use as a stabilizer for emulsions of flavoring oils in nonalcoholic beverages at concentrations not to exceed 300 ppm (mg/kg) in the finished beverage under U.S. regulation 21 CFR 172.833 subject to certain limitations and restrictions. It can be considered 100% carbohydrate in accordance with the Nutrition Labeling and Education Act and contains 400 calories/100 g.

Eastman Sustane™ SAIB has earned a GreenScreen™ Benchmark score of Three.

Eastman Sustane SAIB also achieved generally recognized as safe (GRAS) status for use as a stabilizer of emulsions of flavoring oils used in alcoholic beverages at levels not to exceed 300 ppm (mg/kg) in the finished beverage (GRAS Notice No. 104 for Eastman Sustane SAIB). The intended uses encompass such beverages as premixed liquid or solid cocktail products, malt beverage coolers including flavored products containing beer, and alcoholic “cooler beverages” or wine coolers.

Eastman ester gum 8WA-M complies with 21 CFR 172.735 as a glycerol ester of rosin allowed for adjusting the density of citrus oils in the preparation of beverages. Concentrations of the rosin ester will not exceed 100 ppm (mg/kg) in the finished beverage.

In addition, Eastman has implemented or is in the process of implementing third-party certification outlined by Global Food Safety Initiative (GFSI) requirements, particularly Food Safety System Certification (FSSC) 22000 for several food grade products.

Tap into the expertise.

Eastman is an innovative leader in organic intermediate production and a trusted supplier with manufacturing facilities worldwide. We understand the challenges the beverage industry faces; and we're energized to help you meet them.

Our dependable supply and extensive experience in meeting customer and market needs are backed by a strong manufacturing core competency, excellent technical service, and problem-solving capabilities.

¹ GreenScreen evaluation CAS #126-13-6; 27216-37-1; 1338-47-2, May 28, 2013.

Additional compliance information on these products can be found on Eastman's Product Regulatory Information Sheets (PRIS). Additional information for these products on composition, physical-chemical properties, and storage and handling can be found on the Safety Data Sheets (SDS) which are available at www.eastman.com.



To learn more, contact your Eastman representative or visit us online at eastman.com/foodandbeverageingredients.





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