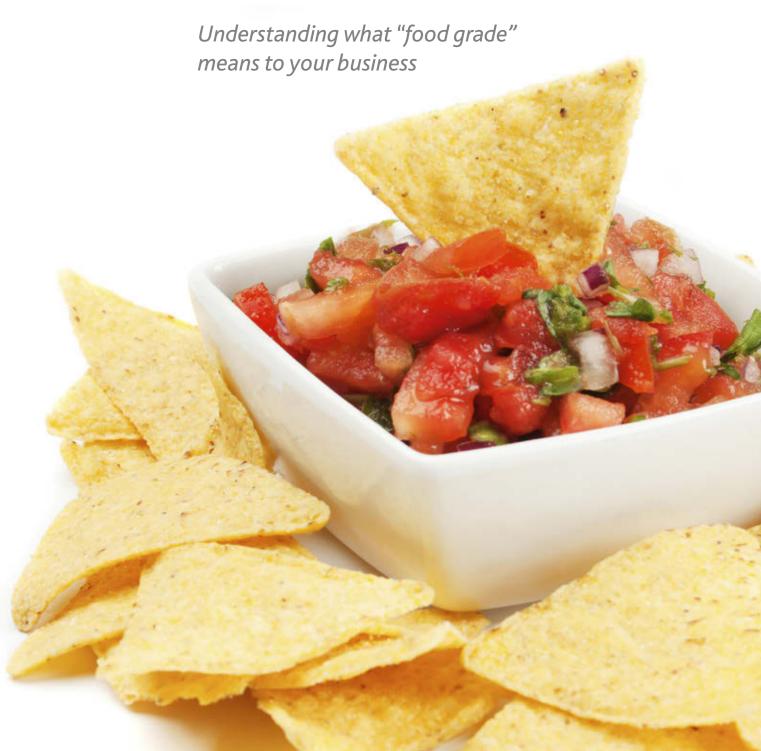


Serving up safety



Do your **"food grade"** ingredients truly make the grade?



Simply put, not all food grade designations are equal. The term food grade is not regulated; as a result, its use is not consistent across the market ... and all vendors.

At Eastman, we share your commitment to safety. Moreover, we help ensure the integrity of your final products by applying a very strict interpretation of what food grade means.

We understand that all elements of the food supply chain—even the personnel—can have significant impact on food safety. That's why we take a holistic approach to food grade designation. It's not merely a test or analysis of final product—but a confirmation that the whole process (from sourcing, manufacturing, storing, and delivery) is done in accordance to strict guidelines. It requires a gamut of oversight measures that includes testing, certification, reporting, and auditing.

Eastman uses the term food grade for products that are intended for use as ingredients in food products and are manufactured under HACCP (Hazard Analysis and Critical Control Points) and food cGMP (current Good Manufacturing Practices)—both as prescribed by the U.S. Food and Drug Administration and authorities worldwide.

Food cGMPs are a set of regulatory guidelines that a food ingredient manufacturer must meet to ensure the quality of their products and reduce the risk of adulteration and contamination. There are many requirements for food cGMP, such as equipment design and cleaning, housekeeping, pest control, personnel requirements, packaging, operating procedures, training, testing, security, and allergen control. Eastman has implemented food cGMP for its food grade products.

HACCP is a structured program for performing a contamination risk analysis of the food product process from raw materials all the way through packaging and shipment of the finished product. Establishing an HACCP program is a regulatory requirement in most countries and for certain products in the U.S.A. The FDA's Food Safety Modernization Act of 2011 (FSMA) will make HACCP a mandatory requirement for all food facilities. Eastman has implemented HACCP plans for all food grade products.

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.

Achieving food cGMP designation can require:

- Classroom training for management and manufacturing personnel
- Quality assurance protocols
- Detailed records management
- Hygiene requirements for personnel
- Monthly housekeeping inspections
- · Notification of change protocols
- Shelf life monitoring and restrictions
- Supplier and raw material qualification
- Inspection of incoming raw materials and packaging
- Contractor evaluations
- Meeting standards for utilities and water supply
- Meeting proper storage guidelines
- Internal and external quality audits
- Contamination prevention measures
- And more

Not being sure can have

unsavory consequences.

The risk of noncompliance can be devastating to a brand. It can include product recalls, overwhelming damage to your brand's reputation, and regulatory fines.

And you can't simply test your way into compliance. Merely meeting specifications does not equal food grade compliance.

For generations, Eastman has championed an unwavering commitment to safety—especially for our products. That's why we have extensive documented processes. And it's why we're a trusted partner in the food and beverage industry.

At Eastman, we have an industry-leading position as one of the first chemical companies to be certified by third-party Global Food Safety Initiative-compliant FSSC 22000 at our facilities.

By insisting on food grade products from Eastman, you can be assured that food grade really means food grade . . . and greatly mitigate the risk of a serious food safety event.

For more information, contact your Eastman representative or visit us online at www.Eastman.com/Markets/Food_Beverage.





Eastman food grade products include:

- Acidulants—Eastman glacial acetic acid, Eastman Sustane™ SAIB
- Antioxidants/shelf life extenders—Eastman Tenox[™] antioxidants, Probenz[™] sodium benzoate
- Emulsifiers and weighting agents—Eastman Sustane™
 SAIB and blends, Pamolyn™ fatty acids, Eastman ester gum
- **Food acids**—Eastman glacial acetic acid, Eastman *n*-butyric acid, ethyl acetate, Eastman propionic acid
- Intermediates for sweeteners, flavors, and textures—Foral™ ester of hydrogenated rosins, Permalyn™ resins, Eastman ester gum, Staybelite-E™ hydrogenated rosins, Eastman triacetin
- Chewing gum ingredients—Eastman triacetin,
 Eastman ester gum



The results of insight

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