



Kalama® and Purox® High Purity, Nature Identical Ingredients for Food & Beverage

Emerald is the **leading global producer** of key preservatives and flavors for the food industry. By producing ingredients to the **highest industry standards for purity and quality**, Emerald helps protect your brand equity and the integrity of your products.

Emerald's operations in **U.S. and Europe** are **backward integrated, strategically located near major ports and rail lines**, and certified under **FSSC 22000, ISO 9001, and ISO 14001**. In addition to **compliance with REACh** and relevant food safety regulations and standards (such as FSMA, GFSI, and c-GMP), our food-grade portfolio meets **FCC specifications** and is also certified **kosher and halal**.

Kalama® Flavor Ingredients

Our portfolio and flavor and fragrance ingredients deliver a desirable, mouthwatering appeal to a wide range of applications. Notes include nature identical **citrus, almond, and cinnamates**, which are central to many applications such as bakery goods, beverages, confectionary, and more.

Purox and Kalama® Benzoate Preservatives

Benzoic acid and its salts are highly effective preservatives to inhibit the growth of yeasts, bacteria, and molds in acidic food and beverage applications. Emerald's Purox benzoates are produced to the highest purity available, minimum 99.9%, which ensures **excellent taste and odor profiles**. Purox® S Sodium Benzoate's unique, dust-free particle size offers **very good dissolution and flow**, making it an excellent choice for applications where solubility is a concern.

Other Benzoate Ingredients

Kalama® Benzyl Alcohol NF/FCC and **Kalama® Benzyl Benzoate** are used as fixatives in confectionary applications.



Key Applications

	Production Location(s)	Beverage			Foods								Other Applications						
		Carbonated Soft Drinks	Fruit Juices & Other Soft Drinks	Alcoholic Beverages (<15 ABV)	Bakery Goods	Non-Yeast-Raised Bakery Goods	Confectionary & Chewing Gum	Ice Creams, Gelatins, Puddings	Dressings, Sauces, Condiments	Fruit Spreads & Filling, Canned Fruit	Olives & Pickles	Hot Pack & Canning	Fish & Shrimp Products	Prepared Salads	Tobacco Products	Oral Care Products	Pharmaceuticals	Agriculture	Animal Feed
Flavors																			
Kalama® C-6 Aldehyde FCC	K	●	●	●			●	●											●
Kalama® C-8 Aldehyde FCC	K	●	●	●	●		●	●											
Kalama® C-10 Aldehyde FCC	K	●	●	●	●		●	●											●
Kalama® 3-Phenyl Propanol FCC	K	●	●	●	●		●	●											
Kalama® Cinnamic Alcohol FCC	K	●	●	●	●		●	●											●
Kalama® Cinnamic Aldehyde FCC	K	●	●	●	●		●	●	●							●			●
Kalama® Benzaldehyde FCC	K, R	●	●	●	●		●	●								●	●		●
Kalama® Methyl Benzoate FCC	K	●	●	●	●		●	●								●			●
Preservatives																			
Purox® B Food/Pharma Benzoic Acid	R					●					●	●	●			●			
Purox® S Sodium Benzoate	R	●	●	●				●	●	●			●	●	●	●	●	●	●
Kalama® Sodium Benzoate	K	●	●	●				●	●	●				●	●	●	●	●	●
Kalama® Potassium Benzoate	K	●	●	●				●	●										
Other Ingredients																			
Kalama® Benzyl Alcohol NF/FCC	K						●									●			●
Kalama® Benzyl Benzoate USP/FCC	K	●	●		●		●	●								●			●

K - Produced in Kalama, WA, USA

R - Produced in Rotterdam, Netherlands

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