



## Kalama® Benzyl Alcohol NF-Parenteral High Purity, NF-Grade Preservative for Pharmaceutical Applications

### Taking Product Quality Seriously. Guaranteed Parenteral/NF/EP grade.

As a leading supplier of benzyl alcohol for pharmaceutical applications, Emerald produces Kalama® Benzyl Alcohol NF-Parenteral to meet the demanding specifications and requirements of the current **USP-NF** and **EP**. Kalama® Benzyl Alcohol NF-Parenteral is trusted for its high purity in a wide range of pharmaceutical applications worldwide, including injectable drugs, which must meet stricter controls and specifications versus standard NF "pharma-grade" benzyl alcohol. In addition to high purity, Kalama® Benzyl Alcohol NF-Parenteral is carefully manufactured using a precise, validated process and is free of chlorinated compounds and added water.

### Validated, Chlorine-Free Manufacturing Process.

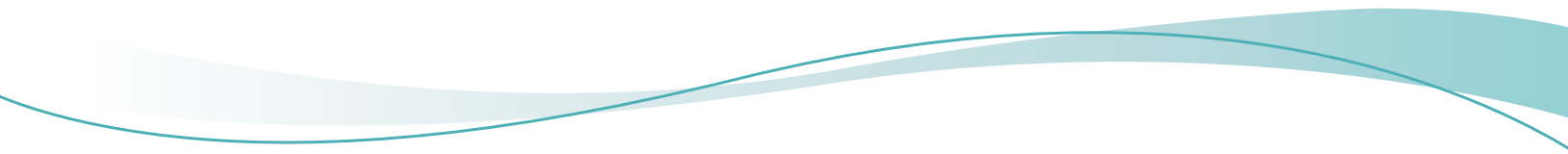
The production and testing processes for parenteral grade benzyl alcohol must be carefully controlled and validated to ensure the highest purity, consistency and quality. Per the compendia, benzyl alcohol intended for parenteral use must be labeled as such. If not labeled for parenteral use, the product may have been manufactured to lower quality standards that don't meet the requirements for parenteral applications. This **can endanger the safety and quality of the final product and lead to regulatory noncompliance**.

Emerald controls every process, equipment, and material that touches Kalama® Benzyl Alcohol NF-Parenteral. Our **validated, chlorine-free manufacturing process** ensures that every batch **meets the highest standards for quality and purity**. Furthermore, we go beyond parenteral requirements, testing to confirm **no detectable endotoxins and low particulates** to help our customers ensure final products meet regulations.



	Kalama® Benzyl Alcohol NF-Parenteral	Competitive Pharma-Grade Benzyl Alcohol
Designated Parenteral	✓ Yes	✗ No
Validated Manufacturing Process	✓ Yes	✗ No
Free of Chlorinated Compounds	✓ Yes	✗ No
Tested for Low Endotoxins, Particulates	✓ Yes	✗ No
Low Level of Toluene	✓ Yes (≤0.003%)	✗ No (≤0.1%)
Presence of Water	✓ No	✗ Yes (≤0.1%)
Double Distilled for Purity	✓ Yes	✗ No (single distilled)
Long Shelf Life	✓ Yes (24 mos.) <sup>†</sup>	✗ No (≤18 mos.)

<sup>†</sup> This date is a retesting date. If the drums have been unopened and have been properly stored, it may be possible to extend the retesting to a maximum of thirty six (36) months.



**Emerald Kalama Chemical** is a leading provider of high purity flavor and fragrance ingredients. As a leading producer of key aroma chemicals, including benzaldehyde, HCA, and Lilestralis® Pure (lilyall) we have been trusted for many years for our **consistency, quality, and expertise**. We also produce high purity benzoates and intermediates, including sodium benzoate and benzoic acid, used in many food, beverage, and personal care applications, as well as certain industrial uses.

Our **state-of-the-art** manufacturing facilities are located in Kalama, Washington (USA), Widnes, United Kingdom, and Rotterdam, Netherlands. Our experienced personnel also work diligently to ensure our products **meet or exceed the highest standards for quality**.

- Broad Portfolio of Nature-Identical Aroma Chemicals and Benzoate Antimicrobials
- Dedicated to the Industry
- Global Reach and Supply with Multiple Production Sites
- Industry Leadership for Quality and Safety Standards
- Committed to Environmental Stewardship

**Emerald Kalama Chemical** is a business group of Emerald Performance Materials, a manufacturer of additives and polymers that make your products last longer and look, taste, smell, or perform better. In addition to Kalama® flavor and fragrance ingredients, Emerald Kalama Chemical produces benzoate preservatives and antimicrobials for personal and household care, food and beverage, and other applications, as well as K-FLEX® low-VOC plasticizers. With a worldwide distribution network and manufacturing in Kalama, WA (USA), Widnes, UK, and Rotterdam, Netherlands, **we serve our customers' needs globally**.

## Contact Us

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