



Kalama® and Purox® Benzoates for Paints & Coatings

Purox® B Benzoic Acid

- Building block and chain terminator in alkyd synthesis
- Inhibitor for corrosion and flash rust

Purox® S Sodium Benzoate Kalama® Sodium Benzoate

Inhibitors for corrosion and flash rust

Kalama® Benzyl Alcohol

Solvent in epoxy resins and paint strippers

Kalama® Benzaldehyde

- Non-reactive diluent for high gloss
- Building block for benzyl amine, benzoin

Purox® B Benzoic Acid

Benzoic acid is a key raw material in the production of alkyd resins to **control viscosity and enhance desirable characteristics** in the final alkyd coating film, including gloss, adhesion, hardness, and chemical resistance, particularly resistance to alkaline substances. It is also used as an additive for effective corrosion inhibition.

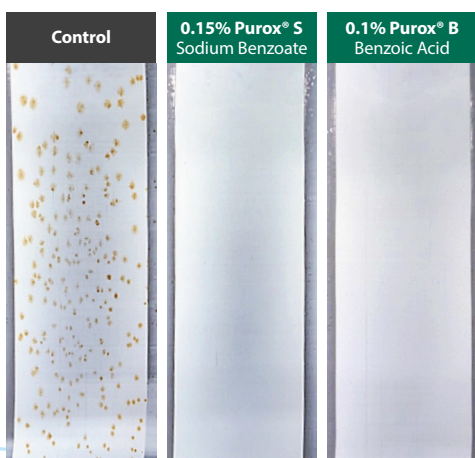
The high quality of Purox B Flakes offers **improved chemical characteristics, low odor and color, and high efficiency**. It is easy to use and incorporate, with **low agglomeration tendency**. It dissolves very well in solvents such as xylene.

Purox® S and Kalama® Sodium Benzoates

Sodium benzoate effectively **inhibits corrosion and flash rust in waterborne systems at low concentrations**. It may also reduce fouling by reducing the tendency of rust and scale to dislodge from corroded surfaces and does not cause foaming in these applications.

Kalama® Benzyl Alcohol

Benzyl alcohol is a solvent, co-solvent, or non-reactive diluent used in coatings to **reduce viscosity, ensure processability at lower temperatures, and increase film flexibility**. It is widely used in epoxy resins for coatings and also has the potential to compatibilize aminic hardeners with the epoxy.



◀ Sodium benzoate and benzoic acid sufficiently inhibit flash rust at 0.1% of the total formula.

40 PVC acrylic, direct-to-metal primer on steel substrate
Purox S dissolved in water used for letdown
Purox B added as a 12% solution in 10% NH₄OH

| Product | Form | Odor & Color | Assay |
|-------------------------------------|---|--|---------------|
| Purox® B Benzoic Acid | White flakes | Virtually odorless and colorless at typical use levels | 99.9% minimum |
| Purox® S Sodium Benzoate | White grains | Virtually odorless and colorless at typical use levels | 99.9% minimum |
| Kalama® Sodium Benzoate | Dense granules, powder, or extruded dust free | Virtually odorless and colorless at typical use levels | 99.0% minimum |
| Kalama® Benzyl Alcohol | Liquid | Virtually colorless, faintly aromatic | 99.9% minimum |
| Kalama® Benzaldehyde | Liquid | Virtually colorless, characteristic odor (almond-like) | 99.5% minimum |

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Emerald Kalama Chemical is the leading global producer of benzoic acid, using the highest industry standards at Emerald's operations in the U.S. and Europe. We have been a trusted supplier to the coatings industry for many years, providing a wide range of high performance, low-VOC additives, extensive formulation expertise, and global service from our world-scale, backward integrated operations.

Emerald also provides Kalama® **VITROFLEX®** and **K-FLEX®** plasticizers and coalescents for a wide range of coatings, adhesives, and sealants and **MODULAST®** urethane-grade modifiers.

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