

## Kalama® VITROFLEX® B Product Description

VITROFLEX B is a unique blend of dibenzoates specially tailored for the polysulfide market. This benzoate plasticizer is useful particularly in the B-side component of 2K polysulfide sealants. VITROFLEX B imparts good rheology for suspension stability of dispersed solids, elasticity, fast cure rates, and hardness development.

Other uses where VITROFLEX B may be useful include plastisol applications, such as plastisol inks, underbody coatings, and seam seals.

## Specifications

Color, maximum, Gardner .....	2
Acidity, acid no. max .....	1.5
Hydroxyl Number, mg NaOH/g sample, max.....	30
Viscosity, Brookfield RVT, 20 RPMs at 25°C, cps and mPa·s .....	730-930

## Typical Properties

Acidity, acid no.....	0.8
Boiling point, 5 mmHg, °C .....	206
Boiling point, extrapolated to 760 mm Hg, °C.....	322
Color, Gardner .....	0
Density, ASTM D1475, 25°C, g/mL .....	1.15
Density, ASTM D1475, 25°C, lbs/gal.....	9.63
Flash point, ASTM D92, °C .....	232
Freeze point, °C .....	<-20
Glass point, by DSC, °C.....	50
Hydroxyl Number (mg NaOH/g) .....	25
Moisture content, % .....	0.06
Refractive index, 25°C .....	1.505
Solubility, in water, %.....	1.13
Solubility, water in, %.....	0.08
Surface tension, ASTM D1331, 25°C, dynes/cm .....	33
Specific gravity, 25/25°C .....	1.15
Vapor pressure, 25°C (extrapolated), mmHg .....	4.6 x 10 <sup>-6</sup>
Viscosity, Brookfield RVT, 20 RPMs at 25°C, cps and mPa·s .....	834
Viscosity, kinematic, 25°C, cSt.....	722
VOC, ASTM D2369, %.....	1.1

## Regulatory Information

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### FDA Coverage:

- 21 CFR 175.105 – Adhesives (PART 175 – INDIRECT FOOD ADDITIVES: ADHESIVES AND COMPONENTS OF COATINGS, Subpart B – Substances for Use Only as Components of Adhesives). VITROFLEX B may be used in applications covered by 175.105 provided a functional barrier separates the food from the adhesive as required by subsection (a)(2) of the regulation.
- 21 CFR 176.170 – Components of paper and paperboard in contact with aqueous and fatty foods. VITROFLEX B is permitted by 176.170(b) provided that the final product (i.e., the food-contact surface of the paper or paperboard) complies with the extractives limitations prescribed in 176.170(c).
- 21 CFR 176.180 – Components of paper and paperboard in contact with dry food

### Global Inventories:

Kalama® VITROFLEX® and K-FLEX® plasticizers are included on or exempted from many global inventories. Please reference the product safety data sheet (SDS) for current global inventory status and other regulatory information. Current SDS's can be found on our website at [www.emeraldkalama.com](http://www.emeraldkalama.com) or can be requested from [product.compliance@emeraldmaterials.com](mailto:product.compliance@emeraldmaterials.com).

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*Emerald Kalama Chemical is a world-scale producer of a variety of benzoic acid, benzaldehyde, and derivatives, with production facilities in the U.S. and Europe. Products include benzoic acid, various benzoate and dibenzoate ester, alcohol and aldehyde derivatives for food and personal care preservatives, flavor and fragrance ingredients, plasticizers and industrial applications. Emerald Kalama Chemical is a division of Emerald Performance Materials, a manufacturer of additives and polymers that make products last longer, look, taste, smell, or perform better. The company has two business units, six operations and approximately 700 employees. For more information, please contact us.*

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