

**Plasticizers & Coalescents**

**K-FLEX<sup>®</sup> 850P Product Description**

Emerald<sup>®</sup> K-FLEX 850P is a blend of dipropylene glycol dibenzoate and diethylene glycol dibenzoate specifically designed for vinyl applications with economy as a focus. It is similar in composition to K-FLEX 850S (diethylene glycol dibenzoate rich). By composition it is a non-phthalate. As a high solvator for vinyl it can be formulated alone or in blends for plastisols as well as melt compounded vinyl.

While tailored especially for vinyl applications, like other dibenzoates it can be used in:

- Latex adhesives
- Latex caulks and sealants
- Polysulfide sealants
- Coatings, both architectural and graphic arts

Like other dibenzoate blends it does have full FDA coverage for adhesive applications. This high solvator can be used to complement other general purpose phthalates or non-phthalates to compatibilize and enhance performance in vinyl as well as other applications.

**Specifications**

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Acidity, as benzoic acid, maximum, %.....	0.3
Assay, as benzoate ester, minimum, %.....	98.0
Color, maximum, APHA.....	150

**Typical Properties**

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Assay, as benzoate ester, %.....	>98
Boiling point, 5 mmHg, °C.....	180
Color, APHA.....	50
Density, ASTM D1475, 25°C, g/mL.....	1.14
Density, ASTM D1475, 25°C, lbs/gal.....	9.6
Flash point, ASTM D92, °C.....	193
Freeze point, °C.....	12
Glass point, by DSC, °C.....	-55
Moisture content, %.....	0.02
Refractive index, 25°C.....	1.5365
Solubility, in water, %.....	0.55
Solubility, water in, %.....	1.64
Solubility parameter, Small's, Hildebrands.....	9.8
Specific gravity, 25/25°C.....	1.14
Surface tension, ASTM D1331, 25°C, dynes/cm.....	45.0
Vapor pressure, 25°C (extrapolated), mmHg.....	2.38 x 10 <sup>-5</sup>
Viscosity, Brookfield RVT, 20 RPMs at 25°C, cps and mPa·s.....	76
Viscosity, kinematic, 25°C, cSt.....	66
VOC, ASTM D2369, %.....	1.7

## 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)
- 21 CFR 176.170 – Components of paper and paperboard in contact with aqueous and fatty foods
- 21 CFR 176.180 – Components of paper and paperboard in contact with dry food

### Global Inventories:

K-FLEX® coalescents and 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.kflex.emeraldmaterials.com](http://www.kflex.emeraldmaterials.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 toluene oxidation products, with production facilities in the US and Europe. Products include benzoic acid, various benzoate and dibenzoate ester, alcohol and aldehyde derivatives for food 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 which make your products last longer, look, taste, smell, or perform better. The company has three business units, six operations and approximately 700 employees. For more information, please contact us.*

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