



**Plasticizers & Coalescents**

**K-FLEX® 850P Product Description**

Emerald® 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**

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

**Typical Properties**

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

---

### FDA CFR Listings:

- 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

Emerald Performance Materials does not warrant that these product(s) are suitable under applicable food additive / food contact regulations of any potential use. The responsibility for determining the overall compliance with applicable food additive / food contact laws and regulations is with the company manufacturing the final consumer product and/or the person placing the products described herein in contact with food. This information is provided in good faith and is believed accurate as of the date of this letter. No warranty is subsequently expressed or implied. Liability is expressly disclaimed.

### 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.emeraldkalama.com](http://www.emeraldkalama.com) or can be requested from [product.compliance@emeraldmaterials.com](mailto:product.compliance@emeraldmaterials.com).

## Contact Us: Emerald Kalama Chemical - K-FLEX® Product Line

### World Headquarters:

1499 SE Tech Center Pl, Ste 300, Vancouver, WA  
800.223.0035 / +1.360.954.7100/ Fax +1.360.954.7201  
[KFLEX@emeraldmaterials.com](mailto:KFLEX@emeraldmaterials.com)

### European Offices:

Fascinatio Boulevard 200-232  
3065 WB Rotterdam, The Netherlands  
+31.88.888.0500  
[KFLEX.emea@emeraldmaterials.com](mailto:KFLEX.emea@emeraldmaterials.com)

### Asian Pacific Offices:

Rm 1708 Shui On Centre 6-8 Harbour Rd., Wanchai, Hong Kong  
+852 2598-7990 / FAX +852 2512-2241  
[KFLEX.asia@emeraldmaterials.com](mailto:KFLEX.asia@emeraldmaterials.com)

*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.*

**Global service through our Regional Distribution Partners**  
[www.emeraldkalama.com](http://www.emeraldkalama.com)

The information contained herein is believed to be reliable; however it is based upon laboratory work with small scale equipment and does not necessarily indicate end-product performance. Because of variations in methods, conditions and equipment used commercially in processing these materials, Emerald makes no representations, warranties or guarantees, express or implied, as to the suitability of the products for particular applications, including those disclosed, or the results to be obtained. Full-scale testing and end-product performance are the responsibility of the user. Emerald Performance Materials shall not be liable for and the customer assumes all risk and liability for use and handling of any materials beyond Emerald's direct control. Nothing contained herein is to be considered as permission, recommendation nor as inducement to practice any patented invention without permission of the patent owner.