

K-FLEX 850S Dibenzoate Plasticizer CAS No. 27138-31-4 & 120-55-8 TECHNICAL DATA SHEET

K-FLEX® 850S Product Description

Emerald® K-FLEX 850S is a blend of diethylene glycol dibenzoate and dipropylene glycol dibenzoate. The composition of this blend of classic dibenzoates is optimized for waterborne latex applications.

In particular, the K-FLEX 850S dibenzoate plasticizer blend is designed for:

- Latex adhesives
- Latex coatings
- Latex caulks and sealants
- Latex overprint varnish and waterborne flexographic ink

Like K-FLEX DP and 500, K-FLEX 850S has full FDA approvals for adhesives and was created to maximize on efficiency and cost effectiveness. In coatings K-FLEX 850S is low in VOC to assist the formulator on issues of VOC reduction. Also, K-FLEX 850S is considered a low vapor pressure-volatile organic compound (LVP-VOC) by Rule 310 of CARB. This means that K-FLEX 850S is not considered a VOC in California for applications such as latex caulk. K-FLEX 850S is not recommended for PVC applications; however, it can be used in other applications such as polysulphide sealants. In the EU K-FLEX 850S is label-free.

Specifications

Acidity, as benzoic acid, maximum, % Assay, as benzoate ester, minimum, % Color, maximum, APHA	98.0
Typical Properties	
Assay, as benzoate ester, %	>98
Boiling point, 5 mmHg, °C	180
Color, APHA	
Density, ASTM D1475, 25°C, g/mL	1.14
Density, ASTM D1475, 25°C, lbs/gal	
Flash point, ASTM D92, °C	
Freeze point, °C	
Glass point, by DSC, °C	
Moisture content, %	0.02
Refractive index, 25°C	1.5361
Solubility, in water, %	0.55
Solubility, water in, %	1.64
Solubility parameter, Small's, Hildebrands	9.8
Specific gravity, 25/25°C	
Surface tension, ASTM D1331, 25°C, dynes/cm	45.0
Vapor pressure, 25°C (extrapolated), mmHg	9.03 x 10 ⁻⁵
Viscosity, Brookfield RVT, 20 RPMs at 25°C, cps and mPa·s	72
Viscosity, kinematic, 25°C, cSt	63
VOC, ASTM D2369, %	



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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 or can be requested from 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 derivates 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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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.

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