



## TALLICIN® K-8 POLYMERIC DISPERSANT

Dispersant for Solvent Coatings, Paraffin Oil and Plasticizer-Based Dispersions

### TYPICAL CHARACTERISTICS

Appearance .	Pale to Yellow Brown Liquid
Non-Volatile	98% By Weight, Min.
Viscosity	<8,000 Cps
Flash Point, °C. (P-M)	250 °F
Color, Gardner	14 Max
Specific Gravity	0.95

### COMPATIBILITY

Tallicin® K-8 is suitable for systems containing:

- Petroleum Solvents –Such as industrial maintenance coatings and product finishes,
- Petroleum Oils – Used in offset ink, and
- Plasticizers – Used in flexible PVC.

Tallicin® K-8 is also compatible for formulation in powder coatings and plastics masterbatches.

### APPLICATIONS

Tallicin® 1500 helps produce a high gloss effect as it eliminates bubbles and craters seen in dip tank applications. Tallicin® 1500 also contributes intercoat adhesion in baking finishes and helps to eliminate surface defects, particularly in high solids coatings. Tallicin® 1500 improves the leveling and brushability of air-dried solvent-based coatings and usually improves the depth of image of gloss paints. Tallicin® 1500 also reduces the viscosity of alkyd varnishes. In addition, Tallicin® 1500 improves the

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flow and leveling of nitrocellulose lacquers. Tallicin® 1500 Tallicin® K-8 is a polymeric dispersant with multiple anchor groups that can be used to disperse inorganic and organic pigments in a variety of systems such as solvent-based coatings, inks, flexible PVC, powder coatings and plastics. When properly formulated, Tallicin® K-8 improves pigment wetting, color development, and storage stability. It allows the formulator to reduce the viscosity or increase the pigment loading in the mill base, thus improving both efficiency and cost of production.

To illustrate the performance of Tallicin® K-8, a dispersion of Pigment Red 3 was prepared in a medium-oil alkyd with mineral spirits. The dispersion based on Tallicin® K-8 demonstrated improvements in color strength and viscosity stability when compared with competitive dispersants and the control without dispersant. The same performance was also seen in another example involving the dispersion of Lithol Rubine Pigment Red 57:1 in a DINP plasticizer-based formulation.

<b>Solvent-Based Dispersion of P.R. 3 for Industrial Maintenance Coatings</b>	
<b>Raw Material</b>	<b>Per Cent by Weight</b>
Clariant 13-2100 ansa Scarlet (P.R.3)	38.0
Medium Oil Alkyd (50% Mineral Spirits)	19.0
Tallicin® K-8	1.0
Mineral Spirits	42.0
Total	100.0
Per Cent Tallicin K-8 on Pigment Weight	2.63%

<b>Test Results – Solvent-Based Dispersion of P.R. 3 for Industrial Coatings</b>			
	Tallicin® K-8	Competitive Dispersant	Control
Initial Viscosity, Brookfield RVT #4, 20 RPM, 25°C	2000 cps	2700 cps	>10,000 cps
Two weeks at 50°C	2000 cps	4300 cps	>10,000 cps
Color Strength	108%	106%	100.0

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<b>Plasticizer-Based Dispersion of Lithol Rubine P.R. 57:1 for Flexible PVC</b>	
<b>Raw Material</b>	<b>Percent by Weight</b>
Colorwen Lithol Rubine 1540 (P.R. 57:1)	40.0
Tallicin® K-8	1.0
Diisononyl Phthalate (DINP)	59.0
Total	100.0

<b>Test Results – DINP Dispersion of Lithol Rubine For Flexible PVC</b>			
	<b>Tallicin® K-8</b>	<b>Competitive Dispersant</b>	<b>Control</b>
Initial Viscosity, Brookfield RVT #6, 10 RPM, at 25°C	23,000	37,000	Did not wet
Two weeks at 50°C	23,000	38,000	Did not wet
Color Strength	113%	100%	Not tested

<b>Comparison of Phthalo Blue Paraffin Oil Dispersion with Various Levels of Tallicin® K-8</b>			
<b>Raw Material</b>	<b>Per Cent by Weigh</b>		
Phthalo Blue Green Shade (P.B. 15:3)	25		
Tallicin® K-8	1.0	2.5	5.0
Semtol 40 Paraffinic Oil	74.0	72.5	70.0
Color Strength Results	100%	106%	120%

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### Typical Procedure for Milling

1. Pre-blend batch to uniformity using high speed disperser at 2500 r.p.m. for 30 minutes.
2. Feed Pre-mix into Premier Horizontal Mill with 0.8 mm Zirconium Silicate media.
3. Disperse until maximum color development is reached.

## FEATURES

Improves color strength.

Higher pigment concentration or reduced mill base viscosity.

Stabilizes the viscosity of the mill base.

Effective with Organic and Inorganic Pigments.

## PROUDUCT USES (For professional use only. Not intended for retail sales.)

Tallicin® K-8 should be added to the mill base between 2 and 20% based upon pigment weight if the surface area of the pigment is unknown. If the Pigment Surface Area is known then use the following formula:

$(\text{Pigment Surface Area}) \div 5 = (\text{Per cent dispersant on the weight of the pigment.})$

Pflaumer Brothers has developed a large data base of various pigment surface areas and/or suggested formulations which can be provided upon request.

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## **CONTAINER SIZES**

5 Gallon Pails (40 Lb/18 Kg)

55 Gallon Drums (441 Lb/200 Kg)

275 Gallon Totes (2,205 Lb/1,000 Kg)

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