

Cellini® Colors

Color Pigments for Color Cosmetics and Personal
Care Products

Technical Information

November 2016

Cellini® Colors

Cellini colors were the first line of cosmetic effect pigments that combined clean and intense FDA approved organic colors with pearlescent effect enhancing pigments. They are especially easy to work with because the colorant is predispersed, and because they contain a wetting agent that makes them hydrophobic.

Cellini colors offer a novel, luminescent look that adds brightness and depth to a broad range of cosmetics, especially lip, face, and eye products. In eye shadows, they give more intense shades than have been available before. Also, the Cellini Blue grade is the first absorption blue pearl that can be used in lip area products in the U.S.

As value added colorants, Cellini colors can make cosmetic production easier. The predispersed organic pigment can help manufacturers avoid the sometimes arduous task of grinding, deagglomerating and dispersing standalone organic colorants. In addition, the presence of a wetting agent may allow manufacturers to eliminate many of the process steps needed to create hydrophobic surfaces.

The wetting agent in Cellini colors also tends to reduce colorant bleed in aqueous systems. This agent can also improve performance in wet/dry applications and makes Cellini colors especially effective in powders, lipsticks, and other anhydrous applications.

Four of the five Cellini grades (Blue, Yellow, Green and Coral) are designated for broad application in the U.S., including eye area applications. Cellini Red was created for eye-area cosmetics in Japan, however it is not allowed for eye-area use in the U.S.

Cellini Colors – Typical Properties

CELLINI GRADE*	COLORANT COMPONENT	PARTICLE SIZE (µm) RANGE**	DENSITY (kg/L)	APPROX. BULK DENSITY****	
				lb/ft ³	g/100cm ³
Yellow 220CY5F	Yellow 5 Lake	95% between 6-48 µm	***	16	26
Red 420CR7F	Red 7 Lake	95% between 6-48 µm	***	16	26
Coral 420CR40F	Red 40 Lake	95% between 6-48 µm	***	16	26
Blue 620CB1C	Blue 1 Lake	95% between 6-48 µm	***	16	26
Green 820CGBYF	Yellow 5 Lake and Blue 1 Lake	95% between 6-48 µm	***	16	26

* Please refer to individual product specification sheets for certifiable product specifications

** The particle size results will vary depending on the light scattering instrument used. The values listed (as % by weight) are the results using a Malvern Mastersizer

*** due to hydrophobic wetting agent, density is not tested

**** Determined by ASTM Method D-716-86

Applications

Formulating Guidelines

Red 40 Lake, found in Cellini Coral, is not approved for use in Japan, while Red 7 Lake, found in Cellini Red, is not approved for eye applications in the U.S.

All other Cellini Colors are approved under conditions normally encountered in cosmetic and personal care formulation, production, and use. However, all grades should be tested in potential formulations before commercialization in order to determine if performance will be acceptable.

Since regulations change over time, we recommend that appropriate use of each colorant be confirmed against each region's current cosmetic regulations.

Physical and Chemical Properties

Solubility

Cellini color pigments are composed of both inorganic and organic components. The organic colorants present may become soluble in certain formulations. The potential for organic colorant bleed should be a part of the stability protocol for these grades.

Please note that these pigments are hydrophobic and may not disperse in water.

pH

Due to the presence of the hydrophobic wetting agent, the pH of these pigments is not tested.

Specifications

For product specifications, refer to the respective specification sheet (separate document) for each Cellini product.

The color additive components in the products identified in this data sheet meet the applicable FDA (21 CFR Part 73), EU Cosmetic Regulation EC/1223/2009 (Annex IV, including EC-231-2012 requirements), Japan MHW, Korean Cosmetics Colorants Standard, and China's Cosmetic Safety and Technical Standard (2015 version) specifications and purity requirements.

Microbial status for Cellini products:

Total aerobic bacteria	<100 CFU/g max.
Yeast & mold	<100 CFU/g max.
Gram-negative bacteria	absent in 10g
E. coli	absent in 10g
Pseudomonas aeruginosa	absent in 10g
Staphylococcus aureus	absent in 10g

Storage

Cellini color pigments have storage stability of at least 10 years from the date of manufacture, provided that they are stored in unopened original containers, protected from light, and under normal conditions of temperature and humidity.

Safety Data Sheet

A Safety Data Sheet for each Cellini pigment is available.

Further Product Ranges

Bi-Lite® Bismuth Oxychloride/Mica Pigments
 Cellini® Colors
 Chione™ Pigments
 Chroma-Lite® Colors
 Cloisonné® Colors
 Duochrome® Iridescent Colors
 Flamenco® Pearlescent and Iridescent Pigments
 Gemtone® Colors
 Mearlite® and Biju® Ultra Bismuth Oxychloride Pigments
 Mearlmica® Specialty Performance Mica
 MultiReflections™ Iridescent Pigments
 Pearl-Glo® Bismuth Oxychloride Pigments
 Reflects™ Pearlescent and Iridescent Pigments and Colors
 Reflects™ Dimensions Pearlescent and Iridescent Pigments and Colors
 Reflects™ MultiDimensions Color Changing Pigments
 Timica® Luster Pigments

Appendix – Cellini Product Compositions

Component	By Weight	CI No.	CAS No.	EINECS No.
Cellini Yellow 220CY5F - INCI Name: Mica (and) Titanium Dioxide (and) Yellow 5 Lake (and) Hydrogenated Polyisobutene (and) Palmitic Acid				
Mica	41 – 50 %	77019	12001-26-2	310-127-6
TiO ₂	22 – 32 %	77891	13463-67-7	236-675-5
FD&C Yellow 5 Aluminum Lake	19 – 23 %	19140:1	12225-21-7	235-428-9
Hydrogenated Polyisobutene	5.2 – 5.6 %	-	68937-10-0	n.a.
Palmitic Acid	0.5 – 0.7 %	-	57-10-3	200-312-9
Preservative System:				
Phenoxyethanol	0.7 – 0.9 %	-	122-99-6	204-589-7
Benzoic Acid	0.15 – 0.25 %	-	65-85-0	200-618-2
Cellini Red 420CR7F - INCI Name: Mica (and) Titanium Dioxide (and) Red 7 Lake (and) Hydrogenated Polyisobutene (and) Palmitic Acid				
Mica	37 – 52 %	77019	12001-26-2	310-127-6
TiO ₂	29 – 43 %	77891	13463-67-7	236-675-5
D&C Red 7 Calcium Lake	12 – 14 %	15850:1	5281-04-9	n.a.
Hydrogenated Polyisobutene	5.2 – 5.6 %	-	68937-10-0	n.a.
Palmitic Acid	0.5 – 0.7 %	-	57-10-3	200-312-9
Preservative System:				
Phenoxyethanol	0.7 – 0.9 %	-	122-99-6	204-589-7
Benzoic Acid	0.15 – 0.25 %	-	65-85-0	200-618-2
Cellini Coral 420CR40F - INCI Name: Mica (and) Titanium Dioxide (and) Red 40 Lake (and) Hydrogenated Polyisobutene (and) Palmitic Acid				
Mica	37 – 52 %	77019	12001-26-2	310-127-6
TiO ₂	29 – 43 %	77891	13463-67-7	236-675-5
FD&C Red 40 Aluminum Lake	12 – 14 %	16035:1	68583-95-9	271-524-7
Hydrogenated Polyisobutene	5.2 – 5.6 %	-	68937-10-0	n.a.
Palmitic Acid	0.5 – 0.7 %	-	57-10-3	200-312-9
Preservative System:				
Phenoxyethanol	0.7 – 0.9 %	-	122-99-6	204-589-7
Benzoic Acid	0.15 – 0.25 %	-	65-85-0	200-618-2

Appendix – Cellini Product Compositions

Component	By Weight	CI No.	CAS No.	EINECS No.
Cellini Blue 620CB1C - INCI Name: Mica (and) Titanium Dioxide (and) Blue 1 Lake (and) Hydrogenated Polyisobutene (and) Palmitic Acid				
Mica	33 – 43 %	77019	12001-26-2	310-127-6
TiO ₂	29 – 40 %	77891	13463-67-7	236-675-5
FD&C Blue 1 Aluminum Lake	19 – 23 %	42090:2	68921-42-6	272-939-6
Hydrogenated Polyisobutene	5.2 – 5.6 %	-	68937-10-0	n.a.
Palmitic Acid	0.5 – 0.7 %	-	57-10-3	200-312-9
Preservative System:				
Phenoxyethanol	0.7 – 0.9 %	-	122-99-6	204-589-7
Benzoic Acid	0.15 – 0.25 %	-	65-85-0	200-618-2
Cellini Green 820CGBYF - INCI Name: Mica (and) Titanium Dioxide (and) Blue 1 Lake (and) Yellow 5 Lake (and) Hydrogenated Polyisobutene (and) Palmitic Acid				
Mica	23 – 39 %	77019	12001-26-2	310-127-6
TiO ₂	29 – 39 %	77891	13463-67-7	236-675-5
FD&C Blue 1 Aluminum Lake	19 – 23 %	42090:2	68291-42-6	272-939-6
FD&C Yellow 5 Aluminum Lake	9 – 12 %	19140:1	12225-21-7	235-428-9
Hydrogenated Polyisobutene	5.2 – 5.6 %	-	68937-10-0	n.a.
Palmitic Acid	0.5 – 0.7 %	-	57-10-3	200-312-9
Preservative System:				
Phenoxyethanol	0.7 – 0.9 %	-	122-99-6	204-589-7
Benzoic Acid	0.15 – 0.25 %	-	65-85-0	200-618-2

Product Range

Product	PRD-No.
Cellini Yellow 220CY5F	30501548
Cellini Red 420CR7F	30501554
Cellini Coral 420CR40F	30501553
Cellini Blue 620CB1C	30501567
Cellini Green 820CGBYF	30501569
Cellini Yellow 220CY5F	30501548

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