

Chione™ Pigments

Synthetic Mica Colors and Specialty Performance Minerals for
Color Cosmetics and Personal Care Products

Technical Information

November 2016

Chione™ Minerals

Chione M SVA is composed of synthetic mica in combination with lauroyl lysine to enhance the tactile behavior, long-wear properties and hydrophobicity of cosmetic formulations.

Chione Minerals – Typical Properties

CHIONE GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Chione M SVA	Synthetic Fluorophlogopite, Lauroyl Lysine	3 – 20µm	1.9	7.5	12

* 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. 80% of particles are found between the ranges noted in the table.

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

Chione™ Interference Pigments

Chione interference pigments are effect pigments composed of titanium dioxide coated onto a synthetic mica substrate. The result is a very bright clean color, due to the transparency of the substrate. Chione HD interference pigments are ideal for use in cosmetics and personal care products where a clean, high chroma effect is desired. These pigments can be used alone, or in combination with any other BASF cosmetic effect pigment to create new color spaces and/or effects.

Chione Interference Pigments – Typical Properties

CHIONE GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Snowfall White S130D	Synthetic Fluorophlogopite, TiO ₂	10 – 36µm	3.2	9	14
HD Pixel White S130S	Synthetic Fluorophlogopite, TiO ₂	30 – 130µm	3.1	3	4.5
HD Infinite White S130V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.2	9	15
HD Crisp Gold S230V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.5	14	22
HD Digital Pink S430V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.5	14	23
HD Metric Violet S530V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.6	15	24
HD Graphic Blue S630V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.6	17	27
HD Crystal Mint S830V	Synthetic Fluorophlogopite, TiO ₂	6 – 22µm	3.7	18	29

* 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. 80% of particles are found between the ranges noted in the table.

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

Chione™ Metallic Pigments

Chione Celestial Gold is a sparkling metallic white-gold shade with an average particle size of approximately 90 microns. This product adds a sparkling, luxurious and rich metallic look to all color and personal care products.

Chione Metallic Pigments – Typical Properties

CHIONE GRADE*	COMPOSITION	PARTICLE SIZE (µm) RANGE**	DENSITY (Kg/L)	APPROX. BULK DENSITY***	
				Lb/ft ³	g/100cm ³
Celestial Gold S232L	Synthetic Fluorophlogopite, TiO ₂ , Iron Oxides	42 – 170µm	3.0	17	27

* 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. 80% of particles are found between the ranges noted in the table.

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

Applications

Formulating Guidelines

Chione pigments are chemically stable under conditions normally encountered in cosmetic and personal care formulation product 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

All components found in Chione pigments are inorganic and therefore insoluble in water.

pH

The pH of these products is measured by adding 4 grams of the pigment into 96 mL of water. This value can be found on the specification sheet. Chione M SVA is hydrophobic and cannot be tested for pH.

Specifications

For product specifications, refer to the respective specification sheet (separate document) for each Chione 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 Chione 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 Chione 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 Chione 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
 Mearmica® 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 – Chione Product Compositions

Table 1: Chione Minerals

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Chione M SVA - INCI Name: Synthetic Fluorphlogopite (and) Lauroyl Lysine				
Synthetic Fluorphlogopite	94 - 96 %	-	12003-38-2	234-426-5
Lauroyl Lysine	4 - 6 %	-	52315-75-0	257-834-4

Table 2: Chione Interference Pigments

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Chione Snowfall White S130D - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	72 – 82 %	-	12003-38-2	234-426-5
TiO ₂	17 – 27 %	77891	13463-67-7	236-675-5
SnO ₂	< 1 %	-	18282-10-5	242-159-0
Chione HD Pixel White S130S - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	78 – 95 %	-	12003-38-2	234-426-5
TiO ₂	5 – 20 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Infinite White S130V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	63 – 89 %	-	12003-38-2	234-426-5
TiO ₂	11 – 35 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Crisp Gold S230V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	33 – 56 %	-	12003-38-2	234-426-5
TiO ₂	44 – 65 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Digital Pink S430V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	45 – 63 %	-	12003-38-2	234-426-5
TiO ₂	35 – 55 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Metric Violet S530V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	34 – 65 %	-	12003-38-2	234-426-5
TiO ₂	33 – 66 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Graphic Blue S630V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	55 – 67 %	-	12003-38-2	234-426-5
TiO ₂	31 – 45 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0
Chione HD Crystal Mint S830V - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide				
Synthetic Fluorophlogopite	58 – 75 %	-	12003-38-2	234-426-5
TiO ₂	23 – 42 %	77891	13463-67-7	236-675-5
SnO ₂	< 2 %	-	18282-10-5	242-159-0

Table 3: Chione Metallic Pigments

Colorant	By Weight	CI No.	CAS No.	EINECS No.
Chione Celestial Gold S232L - INCI Name: Synthetic Fluorophlogopite (and) Titanium Dioxide (and) Iron Oxides				
Synthetic Fluorophlogopite	65 – 90 %	-	12003-38-2	234-426-5
TiO ₂	10 – 30 %	77891	13463-67-7	236-675-5
Fe ₂ O ₃	1 – 5%	77491	1309-37-1	215-168-2
SnO ₂	< 2 %	-	18282-10-5	242-159-0

Product Range

Product	PRD-No.
Chione M SVA	30564038
Chione Snowfall White S130D	30446449
Chione HD Pixel White S130S	30524873
Chione HD Infinite White S130V	30525015
Chione HD Crisp Gold S230V	30525023
Chione HD Digital Pink S430V	30525132
Chione HD Metric Violet S530V	30525295
Chione HD Graphic Blue S630V	30525300
Chione HD Crystal Mint S830V	30525296
Chione Celestial Gold S232L	30604908

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