

Bastion Paint Cosmetic Colour Pearlescent Pigments **Technical Data Sheet (TDS)**

Distributors Name: Bastion Paint cc

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This TDS applies only to the products that Bastion Paint calls Cosmetic Colour Pearlescent Pigments. Refer to separate TDS documents for Cosmetic Diamond and Colour Shift Pearlescent Pigments.

Bastion Paint does not manufacture these pigments. They are purchased from a reputable supplier that supplies all cosmetic certification documents to Bastion Paint.

For Safety Data Sheet please refer to our Pearlescent Pigment Safety Data Sheet (MSDS) which applies to all Bastion Paint Pearlescent Pigments (cosmetic and non-cosmetic).

- *The most relevant safety and health points are also contained in this TDS.*

1. General product properties

Bastion Paint Cosmetic Pearlescent Pigments are natural mica flakes coated with metal oxides. They are stable products.

Avoid grinding and milling of the pearlescent pigment, the particles might break or the coating layer of the pigment might be damaged when the mechanical stress to the pigments is too high.

Bastion Paint Cosmetic Pearlescent Pigments disperse well without grinding. These pigments can be incorporated easily with simple stirring or mixing. They should not be subject to grinding or high shear mixing so need to be incorporated after any such process steps.

Bastion Paint cannot be held responsible for quality claims related to loss of lustre, brilliance, change in shade or destabilization of your formulation.

1.1. Heavy metals

Heavy metals	Maximum level	Test method
Arsenic (As)	Max. 1 ppm	GTM 009
Lead (Pb)	Max. 10 ppm	GTM 009
Mercury (Hg)	Max. 1 ppm	GTM 009
Cadmium (Cd)	Max. 1 ppm	GTM 009
Zinc (Zn)	Max. 50 ppm	GTM 009
Antimony (Sb)	Max. 2 ppm	GTM 009
Chromium (Cr)	Max. 100 ppm	GTM 009
Barium (Ba)	Max. 50 ppm	GTM 009
Copper (Cu)	Max. 50 ppm	GTM 009
Nickel (Ni)	Max. 200 ppm	GTM 009

Full destruction with microwave, HF and HNO₃ measured with ICP-OES.

1.2. Temperature resistance

Bastion Paint Cosmetic Pearlescent Pigments have a temperature resistance up to the following:

Gold, Silver Bronze: 900°C

Malachite, Emerald, Sapphire Blue: 450°C.

1.3 Loss on drying

The loss on drying of Bastion Paint Cosmetic Pearlescent Pigments is 0 - 0,5 % (105°C).

1.4 Total amount of bacteria

The total amount of bacteria in Bastion Paint Cosmetic Pearlescent Pigments is < 100 cfu/g. This is applicable for deliveries in the original boxes only.

1.5 Yeast and Mould

The yeasts and moulds specification in Bastion Paint Cosmetic Pearlescent Pigments is < 100 cfu/g. This is applicable for deliveries in the original boxes only.

1.6 Pathogens

Absence of pathogen microorganisms in Bastion Paint Cosmetic Pearlescent Pigments. This is applicable for deliveries in the original boxes only.

1.7 Lightfastness

All Bastion Paint Cosmetic Pearlescent Pigments have reasonable lightfastness (reasonable UV stability).

1.8 Shelf life

Bastion Paint Cosmetic Pearlescent Pigments have a shelf life of 10 years. This shelf life is valid for original packaging, stored closed box and dry conditions.

1.9 Non-flammable

Bastion Paint Cosmetic Pearlescent Pigments are not flammable and dusts do not create any explosion risk.

2. Compliance to Regulations

Bastion Paint Cosmetic Pearlescent Pigments are in general approved for cosmetics on the European, USA and Asian markets. However, there are some restrictions;

- There is a restriction for mica based products that are larger than 150 micron (0.006 inch), they are not allowed to use in the eye area. All products that Bastion Paint sells under the name Bastion Paint Cosmetic Pearlescent Pigments have particle size below 150 micron. Other Bastion Paint products such as Cosmetic Diamond Pearlescent Pigments have particle size larger than 150 microns.
- Depending on the colourants used and regulation (EU, USA or Japan) there are some restrictions for the use of Bastion Paint Cosmetic Pearlescent Pigments. A detailed overview 'Cosmetic Approved Pearl' is available upon request.

All Bastion Paint Cosmetic Pearlescent Pigments correspond in their purity requirements with the following regulations:

US-regulations:

Food and Drug Administration HHS 21 CFR (US code of Fed. Regulations) part 73

Subpart B: Drugs

- Section 73.1496 Mica
- Section 73.1575 Titanium Dioxide

Subpart C: Cosmetics

- Section 73.2496 Mica
- Section 73.2575 Titanium Dioxide
- Section 73.2250 Iron Oxides
- Section 73.2299 Ferric Ferrocyanide

Japanese regulations:

Mica JSCI 500492

Titanium dioxide JSCI 002170

Titanated mica JSCI 500043

Red iron oxide coated mica JCIC 520508

Red iron oxide titanated coated mica JCIC 520509

Iron blue coated titanated mica JCIC 522046

EU-regulations:

The raw material is in consistence with the Cosmetic Directive 93/35/EEC (6th modification of directive 76/768/EEC), EC 1223/2009 and to the Decision 98/16. The above named material is not regulated under one of the appendices of directive 93/35/EEC (6th modification of directive 76/768/EEC).

Ingredients used are are compliant with the purity criteria as set out in the COMMISSION REGULATION (EU) No 231/2012.

Chinese-regulations:

All Bastion Paint Cosmetic Pearlescent Pigments are in compliance with; National Standard of the People's Republic of China: GB9685-2008 and Ministry of Health of the People's Republic of China Health Bulletin No.23 of 2011.

All Bastion Paint Cosmetic Pearlescent Pigments are in compliance to China Hygienic Standard for Cosmetics 2015.

3. Not containing

Bastion Paint Cosmetic Pearlescent Pigments do not contain Formaldehyde, Phthalates, sulphates, 1-4 dioxane, Alkylphenol, Nonylphenol, Nonoxynol, Phenol, VOC's (volatile organic compounds), Nitrosamines, EDG (glycol esters), gluten, PAH's (polycyclic aromatic hydrocarbons), substances reported under California Safe Cosmetics Act (SB-484), substances mentioned under Cites, Pigments containing CI77510 are free of Cyanide ions.

4. Preservatives, parabens, pesticides, allergens, disinfectants and irradiation

None of Bastion Paint Cosmetic Pearlescent Pigments contain any preservatives, pesticides, parabens allergens and disinfectants. All products are not classified like CMR substances with according REGULATION (EC) No 1272/2008.

None of the products contain any allergens according to EU Directive 76/768/EEC, ANNEX VIII.

Bastion Paint Cosmetic Pearlescent Pigments have not been exposed to radiation.

5. Non-organic products

All products are non-organic. All ingredients used during production do not contain derivates that come from bovine, ovine or caprine species, stated in the list of Specified Risks Materials, as laid down in Decision 97/534/EC. All products do not contain genetic modified organism as laid down in Decision 90/220/EC.

6. INCI Names

Product Name: Gold

INCI Name: Mica / Titanium Dioxide / Red Iron Oxide / Tin Oxide

Mica (30-41%); Titanium Dioxide (57-62%); Red Iron Oxide (2-7%); Tin Oxide (0-1%)

Product Name: Silver

INCI Name: Mica / Titanium Dioxide

Mica (76-84%); Titanium Dioxide (16-24%)

Product Name: Bronze

INCI Name: Mica / Red Iron Oxide

Mica (60-68%); Red Iron Oxide (32-40%)

Product Name: Malachite

INCI Name: Mica / Titanium Dioxide / Ferric Ferrocyanide / Red Iron Oxide

Mica (37-52%); Titanium Dioxide (46-57%); Ferric Ferrocyanide (1.2-3.6%), Red Iron Oxide (0.8-2.4%)

Product Name: Emerald

INCI Name: Mica / Titanium Dioxide / Red Iron Oxide / Ferric Ferrocyanide

Mica (33-51%); Titanium Dioxide (46-57%); Red Iron Oxide (2-6%), Ferric Ferrocyanide (1-4%)

Product Name: Sapphire Blue

INCI Name: Mica / Titanium Dioxide / Ferric Ferrocyanide

Mica (45-53%); Titanium Dioxide (42-50%); Ferric Ferrocyanide (5-10%)

Product Name: Intense Twilight Violet

INCI Name: Mica / Titanium Dioxide / Black Iron Oxide / Tin Oxide

Mica (37-56%); Titanium Dioxide (39-47%); Black Iron Oxide (5-15%), Tin Oxide (0-1%)

Further information on ingredients

<u>INCI Name</u>	<u>Chemical Formula</u>	<u>Colour Index Number (CI)</u>
Mica	Complex	CI 77019
Titanium Dioxide	TiO ₂	CI 77891
Tin Oxide	SnO ₂ (also called stannic oxide)	CI 77861
Red Iron Oxide	Fe ₂ O ₃	CI 77492
Black Iron Oxide	Fe ₃ O ₄ (also called magnetite)	CI 77499
Silica (silicon dioxide)	SiO ₂	N/A
Ferric Ferrocyanide	C18Fe7N18	CI 77510

7. Avoid Breathing Dust

Users must wear suitable PPE to avoid breathing the dust generated by dry pigments. For small scale handling such as home applications, a certified fabric dust mask is sufficient. For large scale handling a dust extraction system must be used together with a certified fabric dust mask

8. Transport information

Bastion Paint Cosmetic Pearlescent Pigments are classified as not dangerous goods in terms of transport regulations.

9. Formulation guidelines Finished Product

<u>Formulation guidelines Finished Product</u>	<u>Level of use (Recommendation)</u>
Hair styling gel	0,01 - 0,1 %
Hair colouring gel	3 - 5 %
Shower gel	0,01 - 0,1 %
Eye shadow gel	15 - 20 %
Skin gel	0,05 - 0,1 %
Soaps	0,3 - 4,0 %
Pressed powder	30 - 70 %
Loose powder	up to 100 %
Blusher	1 - 5 %
Face powder	1 - 5 %
Body powder	1 - 5 %
Lipstick	12 - 20 %

Lip balm	3 - 5 %
Lip gloss	3 - 5 %
Lip lacquer	10 - 15 %
Body lotion	1 - 3 %
Shampoo	0,1 - 1 %

It is strongly recommended to test Bastion Paint Cosmetic Pearlescent Pigments carefully in your own formulation because they may react differently depending on the type of ingredients used.

Bastion Paint Cosmetic Diamond Pearlescent Pigments disperse well without grinding. These pigments can be incorporated easily with simple stirring or mixing. They should not be subject to grinding or high shear mixing so need to be incorporated after any such process steps.

10. No child labour

Child labour policy:

- The manufacturer does not tolerate the use of child or forced labour in any of its facilities.
- The manufacturer will not tolerate the exploitation of children, their engagement in unacceptably hazardous work, and the physical punishment, abuse, or involuntary servitude of any worker.
- The manufacturer expects their suppliers and contractors with whom they do business with to uphold the same standards.

11. No animal testing

No animal testing was performed by Bastion Paint, the Manufacturer or any sub-contractors on the products in the complete product range.

TDS Complied by and Revision Date

Name: Brian Quicke

Revision Date: 02 February 2021

Title: Member (BSc Chemistry, honours) **Signature:** _____