



Specifications and Product Information

Microfine Titanium Dioxide

INCI: Titanium Dioxide, Alumina, Simethicone

Titanium Dioxide 76 – 82%

Alumina 8 – 11%

Aqua 7 – 9%

Simethicone 1 – 3%

| | Specification |
|-----------------------------------------------------|----------------------------|
| Colour | white |
| Appearance | fine powder |
| Odour | odourless |
| Content of TiO ₂ | 78.0 - 84.0 % |
| Content of Al ₂ O ₃ | 8.0 - 11.5 % |
| Content of SiO ₂ | 1.0 - 3.0 % |
| pH-value (10 % suspension) | 5.8 - 7.8 |
| As (Arsenic) | ≤ 0.0001 % |
| Cd (Cadmium) | ≤ 0.0005 % |
| Co (Cobalt) | ≤ 0.001 % |
| Cr (Chromium) | ≤ 0.001% |
| Ni (Nickel) | ≤ 0.001 % |
| Hg (Mercury) | ≤ 0.0001 % |
| Pb (Lead) | ≤ 0.001 % |
| Sb (Antimony) | ≤ 0.0002 % |
| Loss on drying (105 °C) | ≤ 4.0 % |
| Loss on ignition (800 °C) | ≤ 9.0 % |
| Photocatalytic Activity * | ≤ 10 % |
| Specific surface area (BET) | 70 – 120 m ² /g |
| Microbiological purity (total viable aerobic count) | ≤ 10 ² CFU/g |
| E.coli | absent in 1g |
| Pseudomonas aeruginosa | absent in 1g |
| Staphylococcus aureus | absent in 1g |
| Candida albicans | absent in 1g |
| Salmonella species | absent in 10g |
| Gram negative bacteria | absent in 1g |

| Specification of the TiO ₂ core material | |
|-----------------------------------------------------|-----------------------------------|
| Identity (USP) | passes test |
| Loss on ignition (USP) | ≤ 13 % |
| Content of TiO ₂ (USP) | 99.0 – 100.5 % |
| Water soluble substances (USP) | passes test |
| Substances soluble in acid (USP) | ≤ 0.5 % |
| As (Arsenic) (USP) | ≤ 0.0001 % |
| Hg (Mercury) (USP) | ≤ 0.0001 % |
| Pb (Lead) (USP) | ≤ 0.001 % |
| Sb (Antimony) (USP) | ≤ 0.0002 % |
| Residual Solvents ICHQ3C | excluded by manufacturing process |

Additional Information:

The material is in full compliance with the EU Cosmetics Regulation (EC) No 1223/2009, Annex VI, Reference No. 27a Titanium Dioxide (nano)

Median Particle Size (number size distribution) ≥30 nm, Aspect Ratio 1 - 4.5

Volume Specific Surface Area ≤ 460m²/cm³

Anatase Content ≤5%

Rutile Content ≥95%

* Photocatalytic Activity compared to corresponding non-coated or non-doped reference

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