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**CERTIFICATION OF ANALYSIS
 (Representative Sample)**

**COLORONA BLUE
 COSMETIC PIGMENT**

Product Code KD 202

Lot Number

Date of Manufacture

Expiration Date:

ANALYTICAL DATA

SOP's

SPECS

RESULTS

| | | | |
|---|-------------------|------------|----------|
| Color and Appearance | Merck KGaA | Conforms | Conforms |
| Content of Mica * | Merck KGaA | 62.0 -71.0 | 68.7 % |
| Content of TiO ₂ | Merck KGaA | 23.0 -29.0 | 24.3 % |
| Content of Iron blue | Merck KGaA | 6.0 -9.0 | 7.0 |
| Particle size distribution (80% within 10-60 μm) | Laser diffraction | Conforms | Conforms |
| Median particle size (D50) | Laser diffraction | 18.0 -25.0 | 21.7 μ |
| pH (10% aqueous suspension) | ISO 787-9 | 4.0 -7.0 | 5.7 |
| Loss on Drying(2 hrs. 105 degrees C) | Merck KGaA | </=1.0 | </= 1.0 |

Microbial Purity

USP or EP or JP

| | |
|----------------------------|---------------|
| Total Viable Aerobic Count | < 100 CFU/g |
| E. coli | Absent in 1g |
| Pseudomonas aeruginosa | Absent in 1g |
| Staphylococcus aureus | Absent in 1g |
| Salmonella species | Absent in 10g |
| Gram negative bacteria | Absent in 1g |
| Candida albicans | Absent in 1g |

Heavy Metals

Modified CTFA/Internal

| | | | | | |
|----------|-----------|--------|----------|----------|---------|
| Arsenic | < 2 ppm | Barium | < 50 ppm | Cadmium | < 3 ppm |
| Chromium | < 100 ppm | Copper | < 50 ppm | Mercury | < 1 ppm |
| Nickel | < 10 ppm | Lead | < 10 ppm | Antimony | < 1 ppm |
| Zinc | < 50 ppm | | | | |

The color additives in this material meet all applicable purity requirements of the FDA(21 - CFR), the E C and Japan for cosmetic use

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* Calculated by Difference