



Certificate of Analysis

Product Name:	Titanium Dioxide
INCI Name:	Titanium dioxide (CI 77891)
CAS Number:	13463-67-7
Lot Number:	Not available (data may vary slightly with different lots or batches)
Expiration Date:	60 months from production date

Characteristics	Specifications	Test Value
Appearance	Smooth white powder	Pass
Identification	Conforms to specifications	Pass
Loss on Dry	0.5% MAX	0.1%
Loss on Ignition	0.5% MAX	<0.1%
Water Solubles	0.25% MAX	0.16%
Acid Solubles	0.5% MAX	0.2%
Aluminum Oxide/Silicon Dioxide	2.0% MAX (singly or combined)	---
Aluminum Oxide	---	<0.010%
Silicon Dioxide	---	<0.010%
Arsenic (leachable)	1.0 ppm MAX	<0.2 ppm
Mercury (total)	1.0 ppm MAX	<0.2 ppm
Antimony (leachable)	2.0 ppm MAX	<0.2 ppm
Assay	99.0 - 100.5	99.2%
Lead (total)	5.0 ppm MAX	<1.0 ppm
pH	6.5 - 8.0	7.4
Brightness	98.4 MIN	98.8%
Microbial Count	<100 CFU/g	Pass
Yeasts & Molds	<50 CFU/g	Pass

E. Coli, Salmonella, Staph aureus, Pseudomonas aeruginosa	Absent	Pass
Water Absorption	information only	20
Dispersibility	Forms milky suspension in water	Pass
Retained 325 Mesh	Information only	<0.01%
Soluble Barium	Solution opalescence	Nil
Copper, ppm (total)	Information only	<0.5 ppm
Arsenic, ppm (total)	1.0 ppm MAX (BP/EP)	<0.5 ppm
Antimony, ppm (total)	2.0 ppm MAX (BP/EP)	<1 ppm
Zinc, ppm (total)	50.0 ppm MAX	<1.0 ppm
Iron, ppm (total)	200.0 ppm MAX (BP/EP)	2 ppm
Chromium, ppm (total)	Information only	<0.5 ppm
Cadmium, ppm (total)	1.0 ppm MAX	<0.2 ppm
Lead, ppm (leachable)	10.0 ppm MAX	0.2 ppm
Characteristics	Conforms to EP	Pass
Identification A	Conforms to BP/EP	Pass
Identification B	Conforms to BP/EP	Pass
Identification C	Conforms to BP/EP	Pass
Appearance of Solution	Conforms to EP requirements	Pass
Barium (total)	20.0 ppm MAX (BP)	0.6 ppm
Heavy Metals	20.0 ppm MAX (BP/EP)	<20.0 ppm
Iron	200.0 ppm MAX (BP/EP)	<200.0 ppm
Antimony	100.0 ppm MAX (BP/EP)	<100.0 ppm
Acidity/Alkalinity	Conforms to EP	Pass