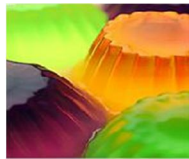


Titanium Dioxide EP / BP / IP / USP / E-171 / FCC IX

The world's Best Quality ever available in India.

- For Pharma Pellets
- For Pharma Tablets and Capsules
- For Pharma Ointment and Lotions
- For Tooth Paste and Cosmetics
- For Bakery Products and Cakes and Chocolates
- For Skimmed Milk, Cheese, Yogurts, Mayonnaise & Tomato ketchup
- For Clouding Agent



In Food Industries
Confectionery / Sweets



In Cosmetic Industries
Toothpaste / Sunscreen



In Bakery Industries



In
Pharmaceutical
Industries



FINISHED PRODUCT INFORMATION

Product Name: Titanium Dioxide (**Food / Pharma Grade**)

MSDS No.: BPPL 137

Specification No.: FP-137

1. **NOMENCLATURE** : Titanium dioxide
: Titanium(IV) oxide
: Titanium white
: Titania
: Pigment White 6,
2. **CAS NO.** : 13463-67-7
3. **EMPIRICAL FORMULA** : TiO_2
4. **MOL. WT.** : 79.87
5. **MELTING POINT** : 1843 °C
6. **STRUCTURAL FORMULA** : $\text{O}=\text{Ti}=\text{O}$
7. **DESCRIPTION** : White, Amorphous Powder.
: Odorless Powder.
8. **APPLICATION IN** : **Food Stuffs** :Colorant for Sugar product, Candy , Icings, Chewing gum , Coffee.
: Used in Low & No-fat products such as coffee creamers , Salad dressings, Cheese, Confections & Baked Foods.
: **Cosmetics:** For high Quality Eye and Face make-ups, Lip sticks, Nail Lacquers, Toothpastes etc .
: **Other application:** Cigarettes and Cigars-Filter wrappings, Tips and Filter Tipping papers, Pet-Foods.
9. **PACKING** : 25 Kgs. PP Bags
with single LDPE Liners.
: 25 kgs. Fibre Drum with PE Liner inside.
10. **SHELF LIFE** : 5 years

FINISHED PRODUCT SPECIFICATION

Product Name: Titanium Dioxide E-171 / FCC IX (Food Grade)

1. **DESCRIPTION** : White, Amorphous Powder.
: Odorless Powder.
2. **SOLUBILITY** : Insoluble in Water.
3. **IDENTIFICATION** : Orange – Red color with H₂O₂
4. **LEAD** : NMT 10 mg / kg. (10 ppm Max)
5. **ARSENIC (AS As)** : NMT 1 mg / kg. (1 ppm Max)
6. **ANTIMONY** : NMT 2 mg/kg. (2 ppm Max)
7. **MERCURY** : NMT 1 mg / kg. (1 ppm Max)
8. **ZINC** : NMT 50 mg/ kg. (50 ppm Max)
9. **CADMIUM** : NMT 1 mg / kg. (1 ppm Max)
10. **LOSS ON DRYING (105°C, 3 hrs)** : NMT 0.50%
11. **LOSS ON IGNITION (800°C)** : NMT 0.50%
12. **WATER SOLUBLE SUBSTANCES** : NMT 0.50%
13. **ACID SOLUBLE SUBSTANCES** : NMT 0.50%
14. **ASSAY** : 99.0 % to 100.5%

FINISHED PRODUCT SPECIFICATION

Product Name: Titanium Dioxide IP / EP / BP / USP (Pharma Grade)

1.	DESCRIPTION	:	White, Amorphous Powder. Odorless Powder.
2.	SOLUBILITY	:	Insoluble in Water.
3.	IDENTIFICATION	:	Orange – Red color with H ₂ O ₂
4.	LEAD	:	NMT 10 mg / kg. (10 ppm Max)
5.	ARSENIC (AS As)	:	NMT 1 mg / kg. (1 ppm Max)
6.	ANTIMONY	:	NMT 2 mg/kg. (2 ppm Max)
7.	MERCURY	:	NMT 1 mg / kg. (1 ppm Max)
8.	LOSS ON DRYING (105°C, 3 hrs)	:	NMT 0.50 %
9.	LOSS ON IGNITION (800°C)	:	NMT 0.50 %
10.	WATER SOLUBLE SUBSTANCES	:	NMT 0.25 %
11.	ACID SOLUBLE SUBSTANCES	:	NMT 0.50%
12.	ASSAY	:	99.0 % to 100.5 %
13.	ORGANIC VOLATILE IMPURITIES	:	As per USP
	CHLOROFORM	:	60 µ Per gm Max.
	1, 4 DIOXINE	:	380 µ Per gm Max.
	DICHLOROMETHANE	:	600 µ Per gm Max.
	TRICHLOROETHYLENE	:	80 µ Per gm Max.

Purity Requirements for Direct Addition to Human Food

- E-171: In Europe ● FDA 21 CFR : In United States ● BIS : In India

Sr. No	Particulars	E-171	FDA 21 CFR	BIS	OUR QUALITY
1	TiO ₂ content [%]	Min. 99.00	Min. 99.00	Min. 99.0	>99.00
2	Loss on drying [%]	Max. 0.50	-	Max. 0.5	<00.20
3	Loss on ignition [%]	Max. 0.50	Max.0.50	Max 0.50	<00.30
4	Al ₂ O ₃ and/or SiO ₂ [%]	Max. 2.00	Max. 2.00	Max. 2.0	<00.02
5	Acid soluble salts [%]	Max. 0.50	Max. 0.50	Max 0.35	<00.35
6	Water soluble salts (hot) [%]	Max. 0.50	Max. 0.50	Max. 0.25	<00.25
7	Cadmium (Total content) [mg/kg]	Max. 1.00	-	-	< 1.00
8	Antimony (Total content) [mg/kg] / ppm	Max. 50.00		Max. 2.00	<2.00
9	Antimony (HCL soluble) [mg/kg] / ppm	-	Max.2.00	-	<2.00
10	Arsenic (Total content) [mg/kg] / ppm	Max. 3.00		Max 1.00	<1.00
11	Arsenic (HCL soluble) [mg/kg]	-	Max. 1.00	-	<1.00
12	Lead (Total content) [mg/kg]	Max. 10.00		Max. 10	<10.00
13	Lead (HCL soluble) [mg/kg]	-	Max. 10.00		<10.00
14	Mercury (Total content) [mg/kg]	Max. 1.00		Max. 1	<1.00
15	Mercury (HCL soluble) [mg/kg]	-	Max. 1.00	-	<1.00
16	Zinc (Total content) [mg/kg]	Max. 50.00	-	Max. 50	<10.00

Applications in Foodstuffs:

- As Colorant for sugar products, Candy, Chewing gum, Coffee whitener.
- As Colorant for Cakes and Mayonnaise , Cookies, Biscuits and White Chocolate, Mints etc.
- Cosmetics : Toothpaste and Sunscreen.

Purity Requirements for Direct use in Medicine

Sr. No	Particulars	BP/ EP	USP	IP	OUR QUALITY
1	Characters	White Powder	White Powder	White Powder	White Powder
2	Appearance of the solution	As per BP/ EP	-	As per IP	Complies
3	Acidity or Alcalinity	As per BP/ EP	-	As per IP	Complies
4	Water-soluble substances	Max. 25 mg	Max 0.25%	NMT 0.5%	<00.25%
5	Acid-soluble substances (%)	-	Max. 0.5	-	<00.35
6	Antimony (HCl soluble) ppm	Max. 100	-	-	<2.00
7	Arsenic (HCl soluble) (ppm)	Max. 5	Max. 1	Max. 5	<1.00
8	Barium	As per BP /EP	-	As per IP	Complies
9	Heavy metals (HCl soluble) (ppm)	Max 20	-	Max.20	<10.00
10	Iron (ppm)	Max 200		Max. 200	Complies
11	Loss on drying (%)	-	Max 0.5	-	<00.20
12	Loss on ignition(%)	-	Max. 0.5	-	<00.30
13	Assay (%)	98.0 - 100.5	99.0 – 100.5	98.0 – 100.5	>99.00
14	Organic volatile impurities	-		-	
	Chloroform		60 ug per gm		<1 ug per gm
	1,4-Dioxane		380 ug per gm		<10 ug per gm
	Dichlormethane		600 ug per gm		<1 ug per gm
	Trichlorethylene		80 ug per gm		<1 ug per gm