

PRETIOX NRK / UVS30

Titanium dioxide for any sun protection application



PRETIOX rutile titanium dioxide UV attenuation products are:

- Designed to be excellent in their UV absorption properties combined with low visible light scattering and greatly reduced photoactivity.
 - Offered in two forms:
 - the highly pure, untreated raw material for further customer's processing.
 - the inorganically surface-treated final product as a direct ingredient for sun protection creams with high SPF and a variety of cosmetic products with additional sun protection function.



PRETIOX NRK / UVS30 products are processed under special technological conditions in order to fulfill the basic principles of the SCCS Opinion 1516/13 - Opinion on Titanium Dioxide (nano form). NRK grades comply with the US Pharmacopoeia 42/2019 (UV Attenuation Grade). UVS30 grade is permitted as a UV-filter (Commission Regulation (EU) 2019/1857, Annex VI, reference no. 27) in maximum concentration of 25% and has met both FDA (NDC Package Code: 72681- 583-20) and the HALAL requirements (Halal-ID: C71837).

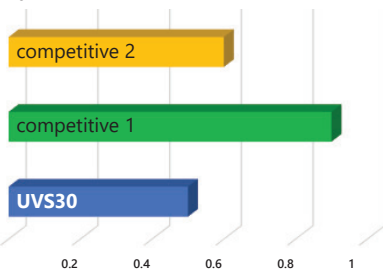
The manufacture of all our products is within the scope of the ISO 9001 certified Quality Management System and ISO 14001 certified Environmental Management System.

Identification

Chemical name	Titanium Dioxide
Chemical formula	TiO ₂
Organic treatment	none
Molecular weight	79.55
Structure	Rutile
CAS No.	13463-67-7
EINECS No.	236-675-5

UVS30 shows excellent stability and negligible photocatalytic activity < 10%.

dE



Photocatalytic activity 5% UVS30 formulation in C12-C15 alkyl benzoate irradiated in a Suntest CPS+ solar simulator for 30 minutes at 300 W/m². The sample was measured before and after using the Spectrophotometer UltraScan PRO (HunterLab). See Egerton et al. (2007) and SCCS Opinion on Titanium Dioxide, nano form, 1516/13, for more details.

Product name

PRETIOX NRK30

PRETIOX NRK40

PRETIOX UVS30 *

	Amphiphilic, semitransparent, odourless, white powder		
Main characteristics			
INCI name	Titanium Dioxide (nano)	Titanium Dioxide (nano)	Titanium Dioxide (nano), Silica, Alumina
TiO ₂ content	≥99%	≥99%	≥79%
Inorganic coating	none	none	Al,Si
Organic treatment	none	none	none
Primary particle size	40 nm	30 nm	40 nm
Specific surface area	25-35 m ² /g	35-45 m ² /g	40-60 m ² /g
Arsenic (As) (HCl soluble)	≤ 1 mg/kg		
Mercury (Hg) (HCl soluble)	≤ 1 mg/kg		
Lead (Pb) (HCl soluble)	≤ 10 mg/kg		
Antimony (Sb) (HCl soluble)	≤ 2 mg/kg		
Pathogens	Not detected		
Packaging	200 kg big-bags	200 kg big-bags	Plastic bags 20 kg net, box 5VVL / 360 kg pallet

* Oil suspensions based on UVS30 with solid phase content approx. 55% can be prepared according to a customer's request.

Our products are not phototoxic (in vitro phototoxicity test on fibroblasts OECD TG 432 In Vitro 3T3 NRU). Although particles are much smaller than pigmentary, they do not penetrate the skin (in vitro skin absorption method OECD TG 428).

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This leaflet is a general guide to the properties and areas of potential application of PRETIOX titanium dioxide grades. Information regarding application is presented in good faith and does not constitute any guarantee. For specific grade selection, see our product specification sheets, or contact the Technical Service Department at PRECHEZA directly. The material Safety Data Sheets and additional information about our products and company are available at www.precheza.cz. The quality control of pigments is undertaken continuously throughout the production process. Samples are available upon request. We recommend initial trial application tests.