

TECHNICAL DATA SHEET

General Description

Commercial name:	EffectiveU-T-red
Producer:	Advanced Dispersed Particles S.L
Chemical formula:	TiO ₂ -Fe ₂ O ₃ -SiO ₂ (mixture)
INCI:	Titanium Dioxide (and) CI-77491 (and) Silica
CAS No.:	13463-67-7, 1309-37-1, 7631-86-9
Colour and Form:	Reddish to Red Powder
Type of product:	Pigment for colouring of cosmetics
Other properties:	SPF and UVA PF booster (see comparison below)

	Concentration in formula	SPF	UVA PF	Ratio UVA/UVB	LOC (nm)
	EnhanceU-T (12wt.%)	32	19	0,74	380
	EnhanceU-T (12wt.%) + EffectiveU-T (3wt.%)	37	24	0,83	385

Solar Light SPF-290AS Spectrophotometer. In vitro measurements after samples irradiation.

Technical Data - Typical Values

Average particle size	>0.1µm (Dynamic light scattering, SEM Microscopy)
Titanium dioxide	63-69wt. % (X-Ray Fluorescence Analysis)
Iron oxide	26-34wt. % (X-Ray Fluorescence Analysis)
Silicon dioxide	0-5wt. % (X-Ray Fluorescence Analysis)

Metals	Units	Max.	Method
As (Arsenic)	mg/Kg	1	ICP-MS
Cd (Cadmium)	mg/Kg	1	ICP-MS
Cr (Chromium)	mg/Kg	40	ICP-MS
Cu (Copper)	mg/Kg	25	ICP-MS
Hg (Mercury)	mg/Kg	1	ICP-MS
Ni (Nickel)	mg/Kg	80	ICP-MS
Pb (Lead)	mg/Kg	10	ICP-MS
Sb (Antimonium)	mg/Kg	2	ICP-MS
Zn (Zinc)	mg/Kg	50	ICP-MS

Loss on drying (100°C)	%	3	Gravimetry
Loss on ignition (600°C)	%	10	Gravimetry
Solubility in water	%	5	Gravimetry

This product is in compliance with Regulation (CE) 1223/2009 on cosmetic products. Traces' metals obey limits for E172 and E171 included in Commission Regulation (EU) No 231/2012 and Spanish Real Decreto No 1465/2009, as well as FDA 21.CFR.73.1200, 21.CFR.73.2250, FDA 21.CFR.73.1575, 21.73.575. Internal specifications are set for loss of water, loss in ignition, and solubility due to the nature of the product (the product is not a pure substance but a mixture, obtained by treating the ingredients with a patented technology).

Completed and approved by:

Blanca Motos Pérez

Technical Manager

ADVANCED DISPERSED PARTICLES

B.86299211

C/ ORO, 45-NAVE14

28770 (MADRID)

www.ad-particles.com

07/01/2019

dc/mm/yy

Disclaimer:

The information here included is a guide. Every effort has been made to ensure complete and accurate information concerning this document. The information here provided is based on our current knowledge. It does not claim to be complete and it does not exempt the purchaser from performing further analyses prior to internal approval. Liability claims regarding damage caused by the use of any information provided, including any kind of information that is incomplete or incorrect, will therefore be rejected.