



Specification Sheet:

**Nanoptek VLT™
Visible Light Titania™ (TiO₂:C)**

Carbon-doped titanium oxide nanopowder visible light photocatalyst, ~100 nm particle size, ~95% with 4-5% carbon on atomic percent basis and ≤ 0.5% trace metals basis

MSDS: MSDS and MDS (EU) are available for VLT™ upon request

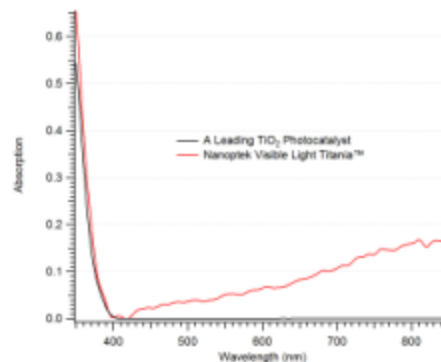
Synonym: Nanoptek Visible Light Titania™, VLT™, carbon-doped titania, carbon-doped titanium dioxide, visible light photocatalyst

CAS Number: Not yet available for VLT™; see 13463-67-7 for TiO₂

Linear formula: TiO₂:C **Molecular Weight:** 79.90 g/mol

EC Number: Not yet available for VLT™; see 236-675-5 for TiO₂

MDL Number: Not yet available for VLT™; see MFCD00011269 for TiO₂



Properties	
Related Categories	Ti, materials science, metal and ceramic science, nanomaterials, nanoparticles, oxides, photocatalysts, visible light photocatalysts
Assay	~95% TiO ₂ with 4-5% C on atomic percentage basis, and ≤ 0.5% trace metals basis
Form	Nanopowder solid
Particle Size	~100 nm
Surface Area m²/g (BET)	Has not been measured yet
MP	1850°C
Color	Dark grey (see insert below right)
Absorption spectrum description	Absorbs strongly in UVA, UVB, UVC, with lower absorption in blue increasing gradually to broad peak in near IR (see insert above left)
Photocatalytic reaction rate	Typically over 20X faster than industry leading titania photocatalysts in reducing total organic carbon (TOC Analysis results from VHG Labs available)

Description	
Packaging	200 mg in 4 ml glass vial in antistatic opaque black polypropylene bag
Legal Information	VLT™ and Visible Light Titania™ are trademarks of Nanoptek Corp. U.S. Pat. Nos. 7,628,928, 7,947,221, and Appl. Ser. No. 13/111,922. "Nu" logo is Registered ®Trademark of Nanoptek.

Price and Availability	
Sample size	200 mg
Price	Free for evaluation by qualified interested parties
Lead time	Typically 1-3 weeks



Safety Information	
<i>Please refer to attached MSDS sheets for titanium dioxide nanopowder</i>	

Manufacturer	Nanoptek Corporation
Address	63 Great Road, Maynard, MA 01754
Website	www.nanoptek.com