

Titanium dioxide nanorods in 1-butanol

Art. ID	ERM-FD103
Unit	ampoule
Deliverydetails	No Dangerous Good /not restricted

Description

ERM-FD103 consists of titanium dioxide nanorods in 1-butanol. The material is available in 5 mL pre-scored glass ampoules containing approximately 2 mL of suspension. The intended use is to check the performance of instruments and/or methods that characterise the morphology (i.e. size and shape) of nanorods (particles with two external dimensions in the size range of approximately 1 nm to 100 nm) that are deposited onto a suitable flat substrate. The certified values that have been assigned are regarded as reliable estimates of the true values and ERM-FD103 can therefore be used for calibration purposes. As a result of the material synthesis process and the physicochemical conditions of the suspension, agglomerates can be expected /// The uncertainty of the certified value is the expanded uncertainty with a coverage factor $k = 2$ corresponding to a level of confidence of about 95 % estimated in accordance with ISO/IEC Guide 98-3, Guide to the Expression of Uncertainty in Measurement (GUM:1995), ISO, 2008.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Certified value / Size parameter / Number-weighted / mode	Minimum Feret diameter (Fmin)		nm	nm		
Certified value / Size parameter / Number-weighted / median	Minimum Feret diameter (Fmin)		nm	nm		
Certified value / Size parameter / Number-weighted / mode	Maximum Feret diameter (Fmax)		nm	nm		
Certified value / Size parameter / Number-weighted / median	Maximum Feret diameter (Fmax)		nm	nm		
Certified value / Size parameter / Number-weighted / mode	Maximum inscribed circle diameter		nm	nm		
Certified value / Size parameter / Number-weighted / median	Maximum inscribed circle diameter		nm	nm		
Certified value / Size parameter / Number-weighted / mode	Area-equivalent diameter (ECD)		nm	nm		
Certified value / Size parameter / Number-weighted / median	Area-equivalent diameter (ECD)		nm	nm		

hted / median

Certified value / Shape Aspect ratio (Fmin/Fmax
parameter / Number-wei)

ghted / mode

Certified value / Shape Aspect ratio (Fmin/Fmax
parameter / Number-wei)

ghted / median