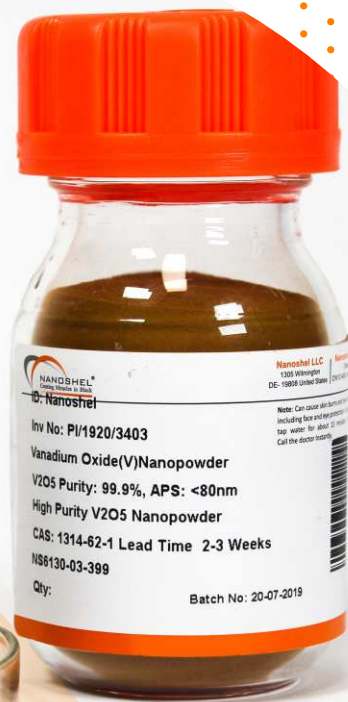


# VANADIUM PENTOXIDE NANOPOWDER



Purity  
**99.9%**



Follow us:

[f](#) [@](#) [t](#) [in](#) | [www.nanoshel.com](http://www.nanoshel.com) | [sales@nanoshel.com](mailto:sales@nanoshel.com)

NS6130-03-399

NEXT

## VANADIUM PENTOXIDE NANOPOWDER

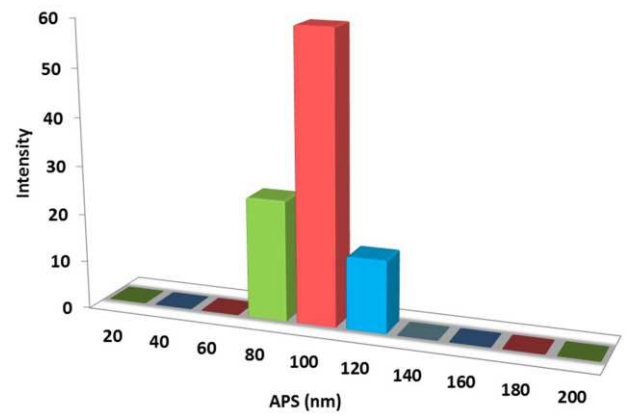
Vanadium oxide is an inorganic compound and its chemical formula is  $V_2O_5$ . It is amphoteric in nature. It is used as an excellent catalyst for industrial purposes. In metal-semiconductor transition there is abrupt change in optical and electrical properties. It is thermodynamically stable and also shows electrochromic properties. It is also used in the form of thin films and thin-films can be utilized in smart windows, optical filter, and reflectance mirrors. It is synthesized by sol-gel method. This oxide is widely used in thermal sensing and switching. This compound based material is exhibited different types of chromogenic effects and also utilized in nanomedicines, automotive. It exhibits multi-colored electrochromism and this permits the utilization in electrochromic displays color filters. It creates many compounds with oxygen and an oxide compound shows various structural, optical and chemical properties.

## QuickFACTS

Product	:	Vanadium Pentoxide Nanopowder
Stock No	:	NS6130-03-399
CAS	:	1314-62-1
Color	:	Yellow – Orange
Form	:	Powder
Symbol	:	$V_2O_5$
Group	:	Vanadium 5/Oxygen 16

### Electronic Configuration:

Vanadium [Ar] 3d3 4s2/Oxygen [He] 2s2 2p4



### ADDITIONAL POWDER CHARACTERISTICS

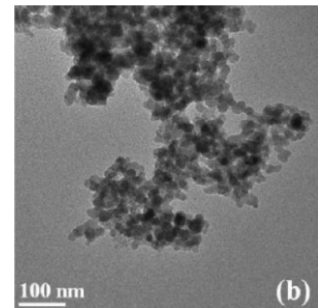
Stock No.	Purity	APS
NS6130-03-399	99.9%	80nm

### TECHNICAL SPECIFICATION

Molecular Formula	Molecular Weight	Density	Melting Point
$V_2O_5$	181.88 g/mol	3.36 g/cm <sup>3</sup>	690 °C

### CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	$V_2O_5$	Other Metal
Vanadium Pentoxide Nanopowder	99.9%	1000ppm



### APPLICATIONS

- > In optical applications such as making of laser crystals
- > In nanofiber applications
- > In nanowire applications
- > In the manufacture of some alloys and ceramics
- > Used as a catalyst



20ZICE4589C



19ZAZGO1274G



20ZICE4588M

ISO 9001:2015  
CERTIFIED COMPANY

**INTELLIGENT MATERIALS PVT LTD**  
Derabassi  
Punjab (140507)  
INDIA

+91 9779 550077, 9779238252

**NANOSHEL UK LIMITED**  
Chapel House,  
Chapel St Cheshire,  
CW12 4AB United Kingdom

+44 1782 454 144, +44 74 105 48802

**NANOSHEL LLC**  
3422 Old Capitol Suit  
1305 Wilmington DE - 19808  
United States

+1 646 470 4911