

**NS6130-12-000291**

# LEAD ZIRCONIUM Titanate Nanoparticles

## Quick Facts

Product	: Lead Zirconate Titanate Nanopowder
Stock No	: NS6130-12-000291
CAS	: 12626-81-2
Molecular Formula	: $O_5PbTiZr$
Form	: Powder

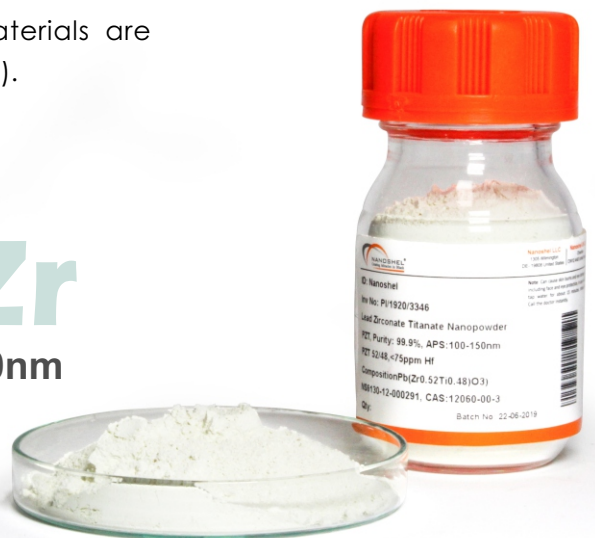
**Purity**  
99.9%

## Technical Specification

Molecular Weight	Density	Melting Point	APS
303.65g/mol	7.7g/cm <sup>3</sup>	N/A	100-150nm

PZT materials, and piezoelectric materials more generally, exhibit a unique range of properties. In a basic sense, if a piezoelectric material is deformed, an electric charge is generated in what is known as the piezoelectric effect. Lead zirconate titanate is an inorganic compound with the chemical formula  $Pb[Zr_xTi_{1-x}]O_3$  ( $0 \leq x \leq 1$ ). Also called lead zirconium titanate, it is a ceramic perovskite material that shows a marked piezoelectric effect, meaning that the compound changes shape when an electric field is applied. It is used in a number of practical applications such as ultrasonic transducers and piezoelectric resonators. Lead zirconate titanate-based materials are components of ceramic capacitors and STM/AFM actuators (tubes).

**$O_5PbTiZr$**   
**APS 100-150nm**



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