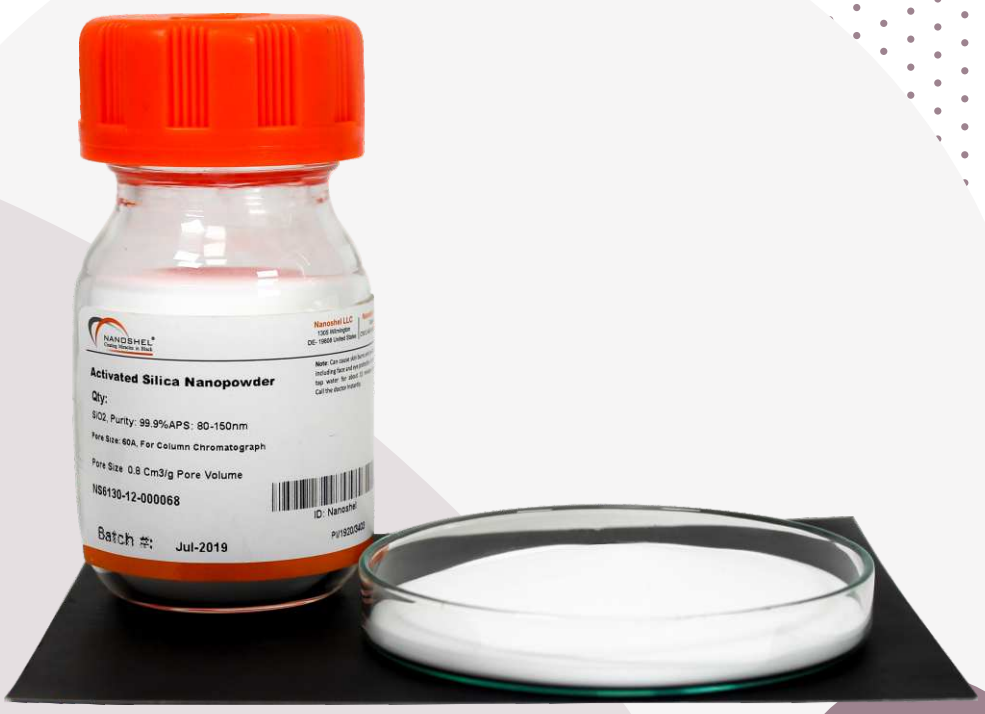
NANOSHEL
Creating Miracles in Black

# SILICA
## NANOPOWDER




Purity
99.9%

$SiO_2$

NS6130-12-000690

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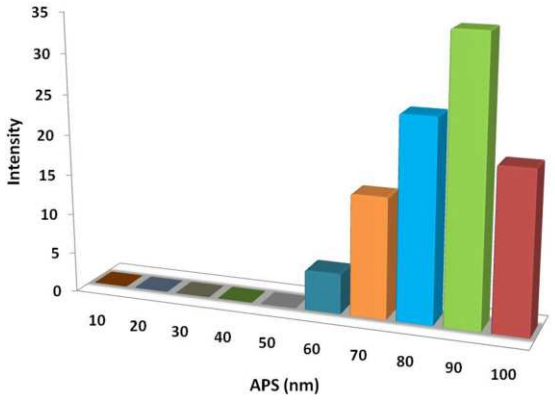
# SILICA NANOPARTICLES

Silica nanoparticles are frequently utilized nanomaterials to build pH nanosensor. Silica nanoparticles are optically transparent, of low toxicity, inert to pH, and (some are) degradable. Moreover, its surface can be easily functionalized via the well-established silane technology that is most beneficial. Silica nanoparticles are promising material for biological applications because of their excellent biocompatibility, low toxicity, thermal stability as well as easy synthetic route. It has synthesized availability at large-scale.

The application of Si-NPs in agriculture may also lead to global food security by helping in the development of improved varieties with high productivity. Silicon nanoparticles are promising and have agricultural implications, and several new applications are being used for plants. In the agricultural sector, Si-NPs are used to be applied as a weapon against heavy metal toxicity UVB stress, salinity stress, dehydration etc.




## ADDITIONAL POWDER CHARACTERISTICS

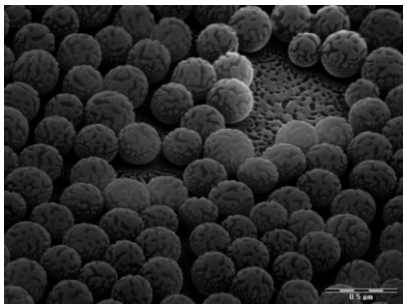
| Stock No. | Purity | APS |
|---|---|---|
| NS6130-12-000690 | 99.9% | <100nm |

## TECHNICAL SPECIFICATION

| Molecular Formula | Molecular Weight | Density | Melting Point |
|---|---|---|---|
| $SiO_2$ | 60.08 g/mol | 2.6 g/cm³ | 1610 °C |

## CHEMICAL COMPOSITION

| Product | Weight Percent (nominal) | |
|---|---|---|
| | $SiO_2$ | Other Metal |
| Gadolinium Oxide Nanopowder | 99.9% | 1000ppm |



## Quick FACTS

| | | |
|---|---|---|
| Product | : | Silica Nanoparticles |
| Stock No | : | NS6130-12-000690 |
| CAS | : | 14808-60-7 |
| Color | : | White |
| Form | : | Powder |
| Symbol | : | $SiO_2$ |
| Group | : | Silicon 14.Oxygen 16 |

**Electronic Configuration:**

Silicon [Ne] 3s2 3p2/Oxygen [He] 2s2 2p4

## APPLICATIONS

> As an additive for rubber and plastics

> As a strengthening filler for concrete and other construction composites

> Non-toxic platform for biomedical applications such as drug delivery and theranostics

> Agricultural implications

20ZICE4589C 19ZAZGO1274G 20ZICE4588M

ISO 9001:2015
CERTIFIED COMPANY

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