Specification Sheet

Silver Oxide Nanoparticles
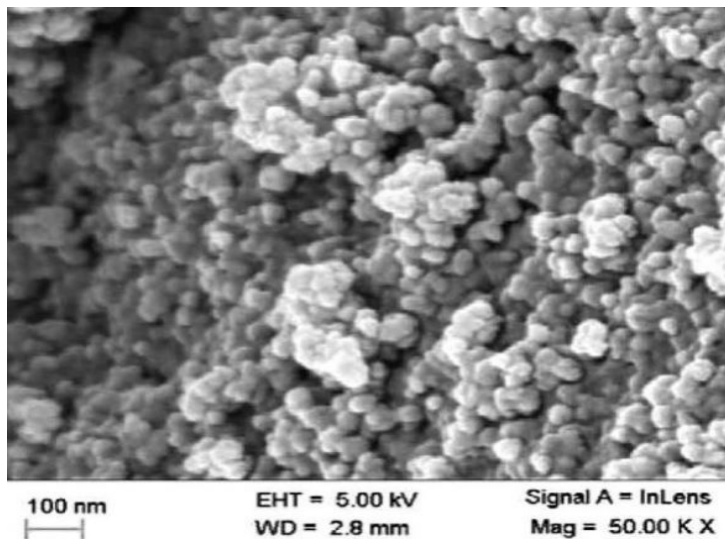(Ag2O, Purity: 99.9%, APS: 50nm)
Stock No: NS6130-12-000179, CAS: 20667-12-3
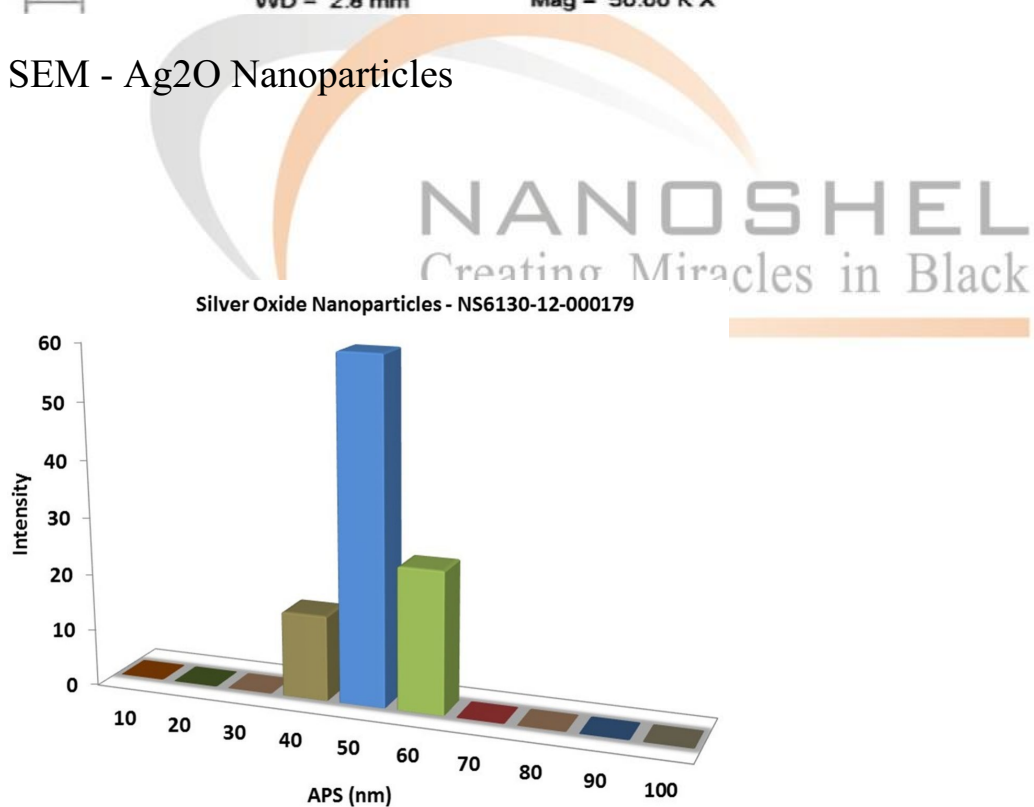
Product	:	**Silver Oxide Nanoparticles**
Stock No	:	NS6130-12-000179
CAS	:	20667-12-3
Purity	:	99.9%
APS	:	50nm
Molecular Formula	:	Ag2O
Molecular Weight	:	231.74 g/mol
Form	:	Powder
Color	:	Gray/black/brown
Density	:	10.49g/cm3
Melting Point	:	280° C
Specific Heat	:	65.9 J/mol•K
Solubility	:	Soluble in acid, ethnol
Main Inspect Verifier	:	**Manager QC**

Note: Product Specification are subject to amendment and may change over time

Characterization of Silver Oxide Nanoparticles

SEM - Ag2O Nanoparticles

Particles Size Analysis

Silver Oxide Nanoparticles

Certificate of Analysis

Silver Oxide Nanoparticles
 (Ag2O, Purity: 99.9%, APS: 50nm)
Stock No: NS6130-12-000179, CAS: 20667-12-3

Product Name	:	**Silver Oxide**
		Nanoparticles
Stock No	:	NS6130-12-000179
CAS	:	20667-12-3
Assay	:	99.9%
Other Metal	:	800ppm

Note 1: Values are given in % unless otherwise specified.

Note 2: All figures above are weight for weight as determined by ICP

NANOSHEL
Creating Miracles in Black

S | O

SILVER

OXIDE NANOPARTICLES

SILVER

OXIDE NANOPARTICLES

Silver (I) oxide is the chemical compound and its chemical formula is Ag 2 O. Ag 2 O shows linear structure, two-coordinate Ag centers joined by tetrahedral oxides. It is photosensitive material.

This oxide is utilized in silver-oxide battery. In organic chemistry, it is used as a mild oxidizing agent. It exhibits unique physical, chemical and biological properties So this compound is the most extensively employed nanoparticles in wound dressings, antimicrobial coatings, cosmetics and anticancer chemotherapy. These nanoparticles are used as antimicrobial agents due to their production costs are low. These nanoparticles are synthesized by some commonly chemical approaches includes chemical reduction using a variety of organic and inorganic reducing agents, electrochemical techniques, physicochemical reduction, and radiolysis.

Quick FACTS

Product	:	Silver Oxide Nanoparticles
Stock No	:	NS6130-12-000179
CAS	:	20667-12-3
Color	:	Gray/black/brown
Form	:	Powder

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Tel: +91 9779550077,9779238252

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APPLICATIONS

- Oxidation catalysis
- Sensors
- Fuel cells
- Photovoltaic cells
- All-optical switching devices and used in optical data storage systems
- As a diagnostic biological probes

Particles **size analysis**
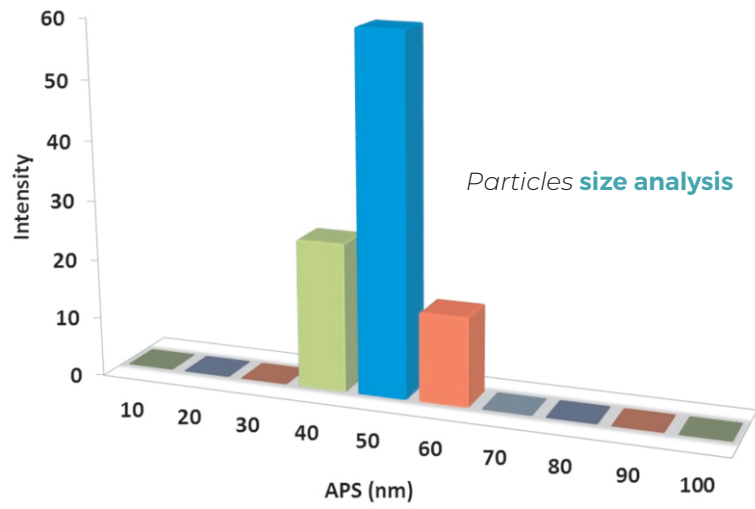
Additional
Powder Characteristics

Stock No.	Purity	APS
NS6130-12-000179	99.9%	50nm

Technical
Specification

Molecular Formula	Molecular Weight	Density	Melting Point	Specific Heat
Ag2O	231.74 g/mol	10.49g/cm3	280° C	65.9 J/mol•K

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Chemical
Composition

Product	Weight Percent (nominal)	
	Ag2O	Other Metal
Silver Oxide Nanoparticles	99.9 %	1000 ppm

Properties

✓ Chemical Symbol: Ag2O

✓ CAS No.: 20667-12-3
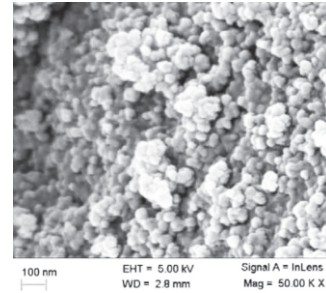
Ordering Information
and Stock Availability

✓ Product: Silver Oxide Nanoparticles

✓ Stock Availability: Available

✓ Distribution: Global

✓ Packing Sizes: 25Gms, 50Gms, 100Gms, 500Gms & Bulk Orders

Handling Recommendations

✓ Store in the original container in a dry location.

✓ Tumble contents prior to use to prevent segregation.

✓ Open containers should be stored in a drying oven to prevent moisturepickup.

Safety Recommendations

Download MSDS/SDS NS6130-12-000179

SDS are available from the Nanoshel

Website at

https://www.nanoshel.com/sections/oxide-nanopowder

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MATERIAL SAFETY DATA SHEET

SILVER OXIDE NANOPARTICLES
Stock #: NS6130-12-000179

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name	:	Silver Oxide Nanoparticles
Use	:	Research and Development
Address	:	Nanoshel LLC
		3422 Old Capitol Suit 1305
		Willmington DE – 19808+
		United States
Emergency	:	+1.532.253.9878
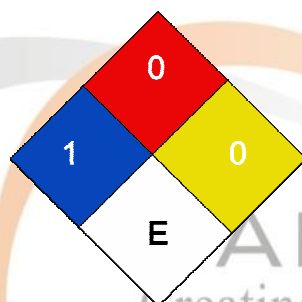
Health	1
Fire	0
Reactivity	0
Personal Protection	E

2. COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Characterisation	:	Ag_2O
Hazardous Ingredients	:	Nil

3. HAZARD IDENTIFICATION

Toxicity	:	No Data Available
Eye Contact	:	Dust may cause irritation

4. FIRST AID MEASURES

Skin	:	Wash skin with soap and copious amounts of water
Eyes	:	Imediate and prolonged irritation treat with copious amounts of water.
Ingestion	:	Wash out mouth with water provided person Is Conscious.

| Inhalation | : | If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen |

5. FIREFIGHTING MEASURES

Extinguishing Data	:	Water Spray
Unsuitable Extinguishing Data	:	Carbon Dioxide, Dry Chemical Powder, Polymer Foam
Unusual Firefighting Hazards	:	Capable of creating a dust explosion
Special Firefighting Procedures	:	Use normal procedures which include wearing self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	:	Wear respirator, chemical safety goggles, rubber boots and gloves.
Precautions to the Environment	:	Sweep up, place in a bag and hold for waste disposal.
Cleanup Procedures	:	Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling Precautions	:	Chemical Safety Goggles. Compatible with Chemical-resistant Gloves
Storage	:	Store in a cool dry place.
Unusable Packaging Materials	:	Wash thoroughly after handling. Irritating dust, Keep tightly closed

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal Protective Equipment

Respiratory	:	Self-contained breathing apparatus
Hand	:	Chemical-resistant Gloves
Eye	:	Avoid contact with eyes
Skin	:	Wash thoroughly after handling

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	:	Powder
Colour	:	Gray/black/brown
Odour	:	No Odour

Safety Related Information

FlashPoint	:	N/A
Boiling Point	:	N/A
Melting Point	:	280 °C
pH	:	N/A

10. STABILITY AND REACTIVITY

Stability	:	Completely Stable
Reactivity	:	Non Reactive/ Non Soluble

11. TOXICOLOGICAL INFORMATION

Possible Health Effects

Skin	:	No effect
Eyes	:	Irritation
Inhalation	:	No Chocking Hazard
Toxicity	:	Non-Toxic

12. ECOLOGICAL IMPACT

Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.
No Negative Ecological Impact, Data not Available

13. WASTE DISPOSAL

Dissolve or mix the material with a combustible solvent and burn in a chemical
incinerator, equipped with an afterburner and scrubber

14. TRANSPORT INFORMATION (UN ORNEK OLARAK VERİLMİŞTİR)

HS Code	:	29029090
CAS	:	20667-12-3
Proper Shipping Name	:	Silver Oxide Nanoparticles
Air Transport (ICAO & IATA)	:	Speciality Chemical
Class	:	Non Hazardeous
Packing group	:	Normal Packing
Transport information	:	Not regulated for IATA (AIR)

15. OHTER REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Silver Oxide Nanoparticles

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada)

DSCL (EEC):
    R36- Irritating to eyes
    S2- Keep out of the reach of children
    S46- If swallowed, seek medical advice immediately & show container or label

HMIS (U.S.A.):
    Health Hazard: 1
    Fire Hazard: 0
    Reactivity: 0
    Personal Protection: E

National Fire Protection Association (U.S.A.):
    Health: 1
    Flammability: 0
    Reactivity: 0
    Specific hazard:

Protective Equipment:
    Gloves.
    Lab coat.
    Dust respirator. Be sure to use an approved/certified respirator or equivalent.
    Splash goggles.

16. OTHER INFORMATION

References: Not available
Other Special Considerations: Not available