

Safety Data Sheet (SDS / MSDS)

Colloidal Silver

Prepared in accordance with GHS Rev. 8 / OSHA HazCom 2012

SECTION 1: Identification

Product Name	Colloidal Silver
Recommended Use	Industrial and cosmetic-ingredient use only — antimicrobial additive in coatings, textile treatments, water-treatment formulations, and cosmetic preparations. Not a dietary supplement or drug.
Manufacturer/ Supplier	Ochnology Solution Pvt. Ltd.
Address	B-153, Sector-4, Defence Colony, Dehradun, Uttarakhand, India - 248001
Contact	projects@ochnology.com, bd@ochnology.com +91 9286823642/43

SECTION 2: Hazards Identification

Colloidal Silver is a nano-scale silver suspension. It is not classified as an acute health hazard under standard GHS physical/health criteria at the concentrations supplied, but silver compounds are recognized as hazardous to aquatic life, and nanoparticle-form materials warrant precautionary handling regardless of bulk-material hazard classification.

GHS Classification:

- Aquatic Chronic 1 (H410 - very toxic to aquatic life with long-lasting effects), based on the known ecotoxicity of silver ions/nanoparticles

Signal Word: WARNING

Hazard Statements:

- H410 - Very toxic to aquatic life with long-lasting effects
- May cause mild eye or skin irritation on direct, prolonged contact

Precautionary Statements:

- P273 - Avoid release to the environment
- P280 - Wear protective gloves/eye protection
- P501 - Dispose of contents/container per local hazardous waste regulations for metal-containing effluent

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Approx. %
Silver (Ag), nanoparticle form	7440-22-4	0.001 - 0.1% (10-1000 ppm)
Deionized Water (carrier)	7732-18-5	Balance

SECTION 4: First-Aid Measures

- Eye contact: Flush with water for several minutes; seek medical attention if irritation persists.
- Skin contact: Wash with soap and water.
- Inhalation (aerosol/mist): Move to fresh air.
- Ingestion: Rinse mouth with water; seek medical attention if large quantities are swallowed.

SECTION 5: Fire-Fighting Measures

- Aqueous suspension; not flammable.
- Use extinguishing media appropriate to the surrounding fire.

SECTION 6: Accidental Release Measures

- Contain spill to prevent entry into drains, waterways, or soil due to aquatic toxicity of silver.
- Absorb with inert material and collect in a suitable container for disposal.

SECTION 7: Handling and Storage

- Store in a cool, dark place away from direct sunlight to preserve particle stability.
- Avoid generating aerosols/mist during handling; use adequate ventilation.
- Keep away from drains and water sources.

SECTION 8: Exposure Controls / Personal Protection

As an engineered nanomaterial, precautionary exposure controls are recommended regardless of the low bulk-hazard profile of silver.

- No specific occupational exposure limit established for nanosilver; general nuisance-aerosol precautions apply
- Respiratory protection: N95 or equivalent recommended during operations generating mist/aerosol
- Eye protection: Safety glasses
- Hand protection: Nitrile or equivalent gloves

SECTION 9: Physical and Chemical Properties

Appearance	Pale yellow to brown liquid
Odour	None
pH	6 – 8
Particle Size	10 – 50 nm (typical)
Solubility in Water	Miscible (aqueous suspension)

SECTION 10: Stability and Reactivity

- Stable under normal conditions of storage when protected from light.
- Avoid strong oxidizing agents and prolonged UV/light exposure, which may destabilize the suspension.

SECTION 11: Toxicological Information

- Low acute toxicity at supplied concentrations; not intended for internal/oral consumer use.
- Silver nanoparticles are under ongoing toxicological study; avoid unnecessary inhalation or prolonged skin contact as a precaution.

SECTION 12: Ecological Information

- Very toxic to aquatic life with long-lasting effects (H410) — silver ions are well-documented as harmful to aquatic organisms even at low concentrations.
- Avoid any discharge to waterways, drains, or soil.

SECTION 13: Disposal Considerations

- Dispose of per local hazardous/metal-containing waste regulations; do not discharge to drains.

SECTION 14: Transport Information

Not classified as dangerous goods for transport at supplied concentrations; confirm against destination-country aquatic-hazard transport rules for bulk quantities.

SECTION 15: Regulatory Information

- Not registered or labelled as a biocide, drug, or dietary supplement; supplied as an industrial/cosmetic raw material only.
- Buyers must confirm biocide/cosmetic-ingredient registration requirements applicable in their destination market.

SECTION 16: Other Information

This SDS reflects the product as supplied in raw-material form. Finished-product safety assessment and regulatory clearance (biocide, cosmetic, or otherwise) is the responsibility of the formulator/buyer.

Disclaimer: Information is provided as a general guide based on available data and is subject to revision without notice. Buyers/users should conduct their own risk assessment and confirm suitability for their specific process and application.