



Super Conductor Materials, Inc.

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Chemtrec: (800) 424-9300
Poison Center: (800) 562-8236
Revision Date: January 8th, 2019

SAFETY DATA SHEET

Identity: Silver oxide

Formula: Ag₂O

SECTION I - GENERAL INFORMATION

Manufacturer: Super Conductor Materials, Inc.

The information below is believed to be accurate and represents the best information available to Super Conductor Materials, Inc. However, SCM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Molecular weight: 231.74

CAS #	OSHA PEL	ACGIH TLV	%
20667-12-3	0.1mg/m ³	0.1mg/m ³	0.0-100.0%

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: N/A

Specific Gravity (H₂O=1): 7.2 g/cm³ at 16.6°C

Melting Point: 230.00°C

Vapor Pressure (vs. air or mmHg): N/A

Evaporation Rate: N/A

Flash Point: N/A

Solubility in water: Soluble, very slightly

Appearance and odor: Dark brown to black powder and pieces, odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non-flammable

Explosive Limits: LEL: N/A

UEL: N/A

Extinguishing Media: Non-flammable; Use suitable extinguishing agent for surrounding material and type of fire

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:

Oxidizing agent, may be flammable by chemical reaction, and may explode when in contact the ammonia.

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): None



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Incompatibility: Copper oxide, carbon monoxide, hydrogen sulfide, magnesium, auric sulfide antimony sulfide, mercury sulfide, nitro alkanes, sulfur, potassium, phosphorous, sodium, NaK, seleninyl chloride, organic materials

Hazardous Decomposition or Byproducts: None

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization): None

SECTION VI - HEALTH HAZARD DATA

Route of Entry: Inhalation? Yes Ingestion? Yes Skin? Yes Eyes? Yes other? No

The absorption of silver compounds into the circulation and the subsequent deposition to the reduced silver in various tissues of the body may result in the production of a generalized greyish pigmentation of the skin and mucous membranes, a condition known as argyria. The introduction of fine particles of silver through breaks in the skin produces a local pigmentation at the site of the injury. 1 mg/m³ of silver dust causes skin effects. The condition develops slowly, usually after 2-25 years of exposure. (Sax, Dangerous Properties of Industrial Materials, eighth edition).

Signs and Symptoms of Overexposure:

Inhalation: May cause a red, dry throat, coughing and bluish-grey skin

Ingestion: May cause abdominal distress, nausea and vomiting

Skin: May cause redness, itching, burning and bluish-grey skin

Eye: May cause redness, itching, burning, and watering

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May cause irritation to upper respiratory system

Chronic: May cause argyrosis, bronchitis, and kidney injury

Ingestion:

Acute: May cause gastrointestinal disturbances

Chronic: May cause kidney injury

Skin:

Acute: May cause irritation

Chronic: May cause argyrosis and dermatitis

Eye:

Acute: May cause irritation

Chronic: May cause argyrosis

Target Organs: May affect the skin, eyes, and kidney.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Medical Conditions Aggravated by Exposure: Pre-existing respiratory disorders

Emergency and First Aid Procedures:

Inhalation: Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention

Ingestion: Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person

Skin: Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist



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Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste disposal method: Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information: Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious rubber gloves, safety glasses, clothes to prevent contact.

Ventilation: Local Exhaust: To maintain concentration at or below PEL, TLV.
Special: Handle in a controlled environment
Mechanical (General): NOT Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established