

# Sterisil Dental Water Microbiological Cartridge [Stage 5 Cartridge]

## Safety Data Sheet

### Section 1 – Identification

**Product Identification:** Sterisil® System Stage 5 Cartridge

**Product Use:** Dental Water Treatment

**Chemical Family:** Silver Impregnated Organic resin

**Company Name:** Sterisil, Inc.

**Company Address:** 835 S Highway 105, Suite D, Palmer Lake, CO 80133, USA

**General Information Telephone:** (719) 622-7200

**Emergency Telephone:** (719) 622-7200 ext. 210

### Section 2 – Hazard Identification

**Signal Word:** Granular

**Pictogram:** None necessary as no adverse side effects occur.

**HMIS Ratings:**



Health – 1

Flammability – 1

Reactivity – 0

Personal Protection Index – E

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). The values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

### Section 3 – Composition/Information on Ingredients

Straw V2 Media within the straw contains less than 17.5% silver by weight.

Common Name	CAS Registration Number	Weight Percent
Sodium Form Weak Acid Cation Exchange Resin (Copolymer of acrylic acid and Divinylbenzene; Water, Dyes)	9052-45-3	82.5%
Silver	7440-22-4	17.5%

## Section 4 – First Aid Measures

**First Aid:** Minimize contact, wash with soap and water.

**Eye Protection/Contact First Aid:** ANSI approved safety glasses. In case of eye contact, flush with water for 15 minutes. Seek medical attention if irritation develops or persists.

**Skin Protection/Contact First Aid:** Wash area with soap and water. Seek medical attention if irritation develops or persists.

**Inhalation First Aid:** While product is granular, if exposed to excessive levels of dust, remove to fresh air. If breathing is difficult, provide oxygen. If not breathing, give artificial respiration. Get medical attention if cough or other symptoms develop.

## Section 5 – Fire Fighting Measures

**Flammable Properties:**

**COC Flash Point:** None

**TCC Flash Point:** None

**Auto-Ignition Temperature:** None

**LEL:** None

**UEL:** None

**Fire Fighting Procedure:**

Product is not combustible. As in any fire, use NIOSH/MSHA approved SCBA & full protective equipment.

**Unusual Fire or Explosion Hazard:**

Combustion may generate carbon, nitrogen, and sulfur fumes.

**Extinguishing Media:**

Media suitable for surrounding fire.

## Section 6 – Accidental Release Measures

**Spill Release Procedures:**

No known hazard from spills. Clean with disposable paper towel, and wash area with soap and water. If dust is present, wear dust mask to minimize exposure.

## Section 7 – Handling and Storage

**Storage:**

Store at room temperature. Avoid any freezing as beads may fracture. Keep cartridges in original packing containers, closed, and sealed when not in use.

**Handling:**

Dispose of in accordance with all Local, State, and Federal regulations, or discharge laws and regulations.

## Section 8 – Exposure Controls/Personal Protection

**Exposure Guidelines:**

OSHA PEL: 0.01 mg/m<sup>3</sup>

OSHA TWA: 0.01 mg/m<sup>3</sup>

**Other Protective Equipment:** None specified by manufacturer.

**Work Hygienic Practices:** None specified by manufacturer.

## Section 9 – Physical and Chemical Properties

**Appearance:** Grey/green granular resin within the tubes; Water treated by the tubes is clear.

**State:** Resin Beads (>99%)

**Odor:** None.

**pH:** Water treated pH dependent on the water used (5 to 8).

**Boiling Point:** Does Not Boil

**Density:** 800 Grams/Liter

**Melting/Freezing Point:** 0 Degrees Celsius

**Vapor Pressure:** N/A

**Vapor Density:** N/A

**Solubility in Water:** Nil.

**Corrosivity:** None known.

**Polymerization:** Hazardous polymerization will not occur.

**Auto-ignition temperature:** Approx. 500° C

**Decomposition temperature:** Above 230° C

**Viscosity:** N/A

## Section 10 – Stability and Reactivity

**Stability:** Stable at ambient conditions.

**Incompatibility with other Materials:** Strong oxidizing agents (i.e. nitric acid).

**Hazardous by-products:** Organic sulfonates, charred polyacrylate, aromatic acids and hydrocarbons, nitrogen oxides, carbon oxides, chlorinated hydrocarbons.

**Dangerous Products of Decomposition:** May yield oxides carbon and nitrogen as a result of thermal decomposition.

## Section 11 – Toxicological Information

**Health Hazards Acute and Chronic:** Although no such observations have been made with Sterisil's antimicrobial media, users should know that long-term absorption of silver, or its compounds, may produce generalized 'Argyria' (gray skin discoloration).

The lifetime exposure standard of acquiring the non-health threatening aesthetic effect of silver bioaccumulation, Argyria, is 25 grams (Federal Register, Vol. 56, No. 20 Jan. 1991, p3573). The total annual dental patient exposure to silver would be 15 micrograms if consuming Sterisil treated water at its highest concentration of 3ppm with the intended use of the product. Assuming continuous annual exposure over a 70 year life span, the total exposure would be 0.001g of silver. The maximum lifetime exposure to silver from Sterisil treated dental water would be only 0.004% of the EPA established standard.

**Potential Health Effects:**

**Eye:** This is a granular product; therefore, dust would be minimal. Not known to cause permanent injury to eye tissue.

**Skin:** Non-irritating. No hazards expected in normal use.

**Inhalation:** Not expected to be toxic by inhalation. While dust would be minimal, it may be slightly irritating to respiratory tract.

**Ingestion:** Non-toxic. No known hazards when using according to container instructions.

**Carcinogenic Information:** None of the components present in this material are listed as carcinogens.

## Section 12 – Ecological Information

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or to state or local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA Title III Section 304). This product does not contain a chemical, which is listed in Section 313 at or above the minimum concentration.

## Section 13 – Disposal Considerations

When decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33.

## Section 14 – Transport Information

**Transportation Class:** Not classified as a dangerous good for transport by land, sea, or air.

**TDG:** Not regulated.

**IATA:** Not regulated.

**DOT (49 CFR 172.101):** Not Regulated

## Section 15 – Regulatory Information

**CERCLA:** Not regulated

**SARA Title III:** Not regulated

**Clean Air Act:** Not regulated

**Clean Water Act:** Not regulated

**TSCA:** Not regulated

**Canadian Regulations**

**WHMIS:** Not a controlled product

**TDG:** Not regulated

**Mexican Regulations:** Not Dangerous

## Section 16 – Other Information

The information contained herein is based on data considered accurate. However, no warranty is expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof.

Sterisil, Inc. assumes no responsibility for personal injury or property damage to vendees, users, or third parties caused by the material. Such vendees, or users, assume all risks associated with the use of the material.

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