TECHNIC, INC.
SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name: EXPERIMENTAL SILPOWDER® 420
Product Code: 16-420
Recommended use: Conductive filler; for industrial use only.
Supplier:
Technic Inc.
1 Spectacle Street
Cranston, RI 02910 USA
Telephone no: 401-781-6100
Emergency no: ChemTrec 800-424-9300, Outside the USA and Canada 703-527-3887

Current SDS preparation date: June 13, 2016
Original SDS preparation date: June 13, 2016

SECTION 2. HAZARD IDENTIFICATION

Classification:

This product is not classified as a hazardous substance or mixture according to the OSHA Hazard Communication Standard of 2012 (29 CFR 1910.1200) or the Globally Harmonized System (GHS) of chemical classification.

Label elements and precautionary statements:

Signal word: No signal word

Pictogram(s): No pictograms

Hazards not otherwise classified: None

Hazard statement(s):
None

Precautionary statement(s):
There are no precautionary statements applicable to this material. However, like all chemicals, it should be handled using appropriate care, personal protective equipment and safety precautions.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Silver (metallic)	7440-22-4	231-131-3	100%

SECTION 4. FIRST AID MEASURES

Inhalation:
Remove patient to fresh air. Support breathing if required. Obtain medical treatment for dizziness, unconsciousness or irritation or difficulty in breathing.

Skin contact:
Remove contaminated clothing and wash affected area thoroughly with soap and water. Launder clothing before rewearing. Seek medical attention for prolonged skin irritation.

Eye contact:
Flush with water, including under lids, for fifteen minutes. Obtain immediate medical attention.

Ingestion:
If patient is conscious, rinse particles from mouth with water; do not swallow. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain immediate medical attention**.**

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use only powder approved for Class D (metal) fires. Cool endangered containers with water spray.

Unsuitable extinguishing media: Do not use water on metal (Class D) fires.

Specific hazards in case of fire: Grinding finely divided powder, particularly with strong oxidizers, may result in an explosion or fire when mixed with air in the proper proportions. Toxic metal fumes may be released in a fire situation.

Special protective equipment and precaution for fire fighters: For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate skin, eye and respiratory protection. Avoid contact with eyes. Avoid prolonged or repeated skin contact and breathing dust or powder. Use in a well-ventilated area. Do not eat, drink or smoke while cleaning up. Ensure adequate ventilation.

Methods and materials for containment and cleaning up:
Wear appropriate personal protective gear. Collect spilled material for silver recovery by vacuuming or sweeping without raising dust. Rinse spill area with water. Do not allow this material or its rinsings to enter storm or sanitary sewers or other waterways (see also Section 13).

Environmental precautions:
Prevent spills and rinsings from entering storm or sanitary sewers or other waterways and contact with soil.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid contact with eyes. Avoid prolonged repeated skin contact and breathing mists or vapors. Use in well-ventilated area. Do not empty waste into sanitary drains.

Conditions for safe storage, including incompatibilities:
Store in a cool, dry area. Use with adequate ventilation. Keep container tightly closed when not in use. Store only in the original container.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Ingredient	ACGIH TLV	OSHA PEL	Other Limits
Silver (metallic)	0.1 mg/m^3 TWA	0.01 mg/m^3	0.01 mg/m^3 NIOSH REL

Appropriate engineering controls:
Use in well-ventilated area with local exhaust.

Respiratory protection:
Wear appropriate, approved respirator when ventilation is inadequate to meet exposure limits.

Eye protection:
Chemical splash goggles or safety glasses with side shields must be worn.

Skin protection:
Wear rubber or neoprene gloves. Wear rubber apron and long sleeves to prevent skin contact. Wash hands thoroughly with soap and water after handling and before eating or smoking.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid, powder
Color: White, lustrous metallic powder
Odor: Odorless to faint aromatic odor
Odor threshold: Not available
pH: Not applicable
Melting/freezing point: 960 °C (1760 °F)
Initial boiling point: Not determined
Flash point: Not applicable
Evaporation rate: Not applicable
Flammability (solid, gas): Not applicable
Upper/lower explosion limits: Non-explosive
Vapor pressure: Not applicable
Vapor density: Not applicable
Relative density (H_2O = 1) @25 °C: 10.5 (metal)
Solubility: Insoluble in water and other common solvents
Partition coefficient octanol/water: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: Not available
Viscosity: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable, non-reactive when stored and used according to recommendations.
Chemical stability: No decomposition if used according to specifications.
Possibility of hazardous reactions: None are known.
Conditions to avoid: None reported.
Incompatible materials: Strong acids, bases and oxidizing agents; ammonia, acetylene and hydrogen peroxide.
Hazardous decomposition products: None reported.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

Inhalation: May cause respiratory tract irritation.

Ingestion: May cause non-specific symptoms of gastric upset due to presence of particulate material.

Skin Contact: Short-term contact produces no symptoms. Prolonged and repeated contact may cause argyria (see below).

Eye Contact: May cause eye irritation which is usually reversible.

Acute and Chronic Effects from Short- and Long-term Exposure:
See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: TDLo: 330 mg/kg (rat, silver metal)

Acute Dermal Toxicity: No applicable information available.

Acute Inhalation Toxicity: No applicable information available.

Acute Eye Irritation: Particulate material may cause temporary irritation.

Dermal Irritation: Prolonged exposure to high concentrations can lead to argyria, a generalized grayish pigmentation of the skin and mucous membranes. Such symptoms usually occur after at least two years of exposure. There are no systemic effects, other symptoms, or physical disabilities known to be associated with this condition.

Carcinogen Listings:

IARC: No **NTP:** No **OSHA:** No

Reproductive Effects: No applicable information available.

Target Organ Effects: No applicable information available.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Silver is one of the most toxic metals known to aquatic organisms.

Persistence and degradability: Silver is not biodegradable and is toxic to aquatic life.

Bio-accumulative potential: There is evidence to suggest bioaccumulation of silver will occur.

Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material may cause environmental damage.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:

Disposal of this material is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

Not regulated by DOT (road, rail), IMDG (sea) or IATA/ICAO (air)

Marine Pollutant: No

SECTION 15. REGULATORY INFORMATION

Inventory Status:
All components are on TSCA, EINECS/ELINCS, AICS, and DSL.
U.S. Regulations:

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

SARA (311/312) HAZARD CATEGORIES:

_X_None ___Immediate ___Delayed ___Fire ___Reactive ___Pressure generating

SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name	CAS Number	Concentration
Silver (metallic)	7440-22-4	100%

The following product components are cited on the lists below:

Chemical Name	CAS Number	List Citations
None		California Proposition 65 List

SECTION 16. OTHER INFORMATION

VOC (Volatile Organic Compounds): None

HMIS Ratings:

Health: 1 **Flammability:** 0 **Reactivity:** 0 **Personal Protection:** C

Prepared by: Allan H. Reed

SDS Preparation date: June 13, 2016 **Supersedes previous version:** New SDS.

This SDS contains revisions in the following section(s): Not applicable. New SDS.

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End of Safety Data Sheet