# **\*\*TECHNIC, INC.**SAFETY DATA SHEET

# **SECTION 1. IDENTIFICATION**

**Product Name:** SILVER POWDER MATERIAL 145

**Product Code:** 40-145

**Recommended use**: Conductive filler; for industrial use only.

Supplier:

Technic Inc.

Current SDS preparation date: June 7, 2017
1 Spectacle Street

Original SDS preparation date: June 7, 2017

Cranston, RI 02910 USA

**Telephone no:** 401-781-6100

Emergency no: ChemTrec 800-424-9300, Outside the USA and Canada 703-527-3887

# **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.

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# 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.

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# 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:** 

IngredientACGIH TLVOSHA PELOther LimitsSilver (metallic)0.1 mg/m³ TWA0.01 mg/m³ 0.01 mg/m³ 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.

### Eve 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.

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# 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<sub>2</sub>O = 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.

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**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

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# **SECTION 15. REGULATORY INFORMATION**

Inventory S All componen U.S. Regulat	its are on TSCA,	EINECS/ELINC	S, AICS, a	nd DSL.	
U.S. Superfu	und Amendmer	nts and Reautl	horization	n Act (SARA)	Title III:
SARA (311/	312) HAZARD	CATEGORIES:			
X_None _	Immediate	Delayed _	Fire	Reactive	Pressure generating
SARA 313: T Chemical Na Silver (metall		cains the follow CAS Number 7440-22-4		313 Toxic Relea <b>Concen</b> 100	tration
The following <b>Chemical Na</b> None	product compor ame	nents are cited CAS Number		List Cit	<b>ations</b> ia Proposition 65 List
	SE	CTION 16.	OTHE	R INFORM	MATION
VOC (Volatil	SE le Organic Com			CR INFORM	MATION
VOC (Volatil	le Organic Com			CR INFORM	MATION
•	le Organic Com gs:	pounds): Nor	ne		MATION  onal Protection: C
HMIS Rating Healt	le Organic Com gs:	pounds): Nor	ne		
HMIS Rating Healt Prepared by	le Organic Com gs: h: 1 Flamma	apounds): Nor	ne <b>eactivity:</b>	0 <b>Pers</b>	onal Protection: C
HMIS Rating Healt Prepared by SDS Prepara	le Organic Com gs: h: 1 Flamma r: Allan H. Reed	ability: 0 R	ne eactivity: persedes	0 Pers	onal Protection: C
HMIS Rating Healt Prepared by SDS Prepara This SDS con The informati warranty of a	le Organic Com gs: h: 1 Flamma r: Allan H. Reed ation date: Jun tains revisions in	ability: 0 R e 7, 2017 Super the following sering is accurate sor implied, con	eactivity: persedes section(s):	previous vers Not applicablest of our knowl	onal Protection: C