

# TECHNIC, INC.

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

**Product Name:** TECHNIC EN AT 5600 A

**Product Code:** 405674

**Recommended use:** Electroless plating bath component; for industrial use only.

**Supplier:**

Technic Inc.  
1 Spectacle Street  
Cranston, RI 02910 USA

**Current SDS preparation date:** January 30, 2019

**Original SDS preparation date:** August 14, 2014

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

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

### SECTION 2. HAZARD IDENTIFICATION

**Classification:**

Acute Toxicity - Oral, Category 4

Sensitization - Skin, Category 1A

Carcinogenicity, Category 1A

Toxic to Reproduction, Category 2

Specific Target Organ Toxicity (Repeated Exposure), Category 1

Acute Aquatic Toxicity, Category 1

Chronic Aquatic Toxicity, Category 1

**Label elements and precautionary statements:**

**Signal word:** Danger

**Pictogram(s):**



**Hazards not otherwise classified:** None

**Hazard statement(s):**

Harmful if swallowed

May cause an allergic skin reaction

May cause cancer

Suspected of damaging fertility or the unborn child

Causes damage to organs through prolonged or repeated exposure

Very toxic to aquatic life with long lasting effects

**Precautionary statement(s):**

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing dust, fume, gas, mist, vapors or spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves, clothing and eye and face protection.

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Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust, fume, gas, mist, vapors or spray.  
Avoid release to the environment.  
Call a poison center or doctor/physician if you feel unwell.  
Collect spillage.  
If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth, do not swallow.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
If exposed or concerned: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
Dispose of contents and container in accordance with local, state and federal regulations.

### SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Nickel sulfate	7786-81-4	232-104-9	21 %

### 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 mouth and drink at least two large glasses of water. 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 media appropriate for surrounding fire such as foam, extinguishing powder, carbon dioxide or water fog. In case of fire, cool endangered containers with water fog.

**Unsuitable extinguishing media:** High pressure water jet.

**Specific hazards in case of fire:** None reported.

**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. 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 including eye, skin and respiratory protection. Contain spilled material and collect by absorption or other suitable method. Flush 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:**

<b><u>Ingredient</u></b>	<b><u>ACGIH TLV</u></b>	<b><u>OSHA PEL</u></b>	<b><u>Other Limits</u></b>
Nickel sulfate	0.1 mg/m <sup>3</sup> (Ni)(TWA)	1 mg/m <sup>3</sup> (Ni)	None found

### **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:** Liquid  
**Color:** Clear, green  
**Odor:** None  
**Odor threshold:** Not available  
**pH:** 2.0+/-0.5  
**Melting/freezing point:** Not determined  
**Initial boiling point:** > 100 °C (> 212 °F)  
**Flash point:** Not applicable  
**Evaporation rate:** Not available  
**Flammability (solid, gas):** Not applicable  
**Upper/lower explosion limits:** Non-explosive  
**Vapor pressure:** Not determined  
**Vapor density:** Not determined  
**Relative density (H<sub>2</sub>O = 1) @25 °C:** 1.25+/-0.05  
**Solubility:** Completely soluble in water at 20 °C  
**Partition coefficient octanol/water:** Not determined  
**Auto-ignition temperature:** Not applicable  
**Decomposition temperature:** Not available  
**Viscosity:** Similar to water

## 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 and oxidizing agents.  
**Hazardous decomposition products:** Oxides of nickel and sulfur.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Routes of Exposure and Symptoms

**Inhalation:** Vapor or mist may be slightly irritating to nasal and respiratory passages.

**Ingestion:** Causes irritation of gastrointestinal tract; may cause gastric upset with nausea, vomiting and diarrhea.

**Skin Contact:** Causes dermatitis (nickel itch) in sensitive individuals.

**Eye Contact:** Causes irritation and burns to eyes.

### Acute and Chronic Effects from Short- and Long-term Exposure:

See Routes of Exposure and Symptoms above.

**Acute Oral Toxicity:** LD50: 162 mg/kg (rat, nickel sulfate) calculated

**Acute Dermal Toxicity:** No applicable information available.

**Acute Inhalation Toxicity:** No applicable information available.

**Acute Eye Irritation:** No applicable information available.

**Dermal Irritation:** No applicable information available.

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**Carcinogen Listings:**

**IARC:** Yes (Group 1) Nickel sulfate

**NTP:** Yes

**OSHA:** No

**Reproductive Effects:** No applicable information available.

**Target Organ Effects:** No applicable information available.

## SECTION 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:** Mortality LOEC: 4.9 mg/l – 216 hours (rainbow trout, nickel sulfate)  
EC50: 2 mg/l – 48 hour (Daphnia magna, nickel sulfate)

**Persistence and degradability:** There are no data reported for this material.

**Bio-accumulative potential:** Bioaccumulation factor (BCF) 11.3 – 46.5 hours (carp, nickel sulfate)

**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) in quantities of 5 gallons or less.**

**Classification for shipment by road or rail, sea (IMDG) and air (IATA/ICAO) in quantities greater than 5 gallons.**

**UN number:** UN3082

**UN proper shipping name:** Environmentally Hazardous Substance, Liquid, N.O.S.  
(Contains Nickel Sulfate)

**Transport hazard class:** 9

**Packing group:** III

**Marine Pollutant:** Yes. (Nickel sulfate)

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## 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:**

☐ None ☒ Immediate ☒ Delayed ☐ Fire ☐ Reactive ☐ Pressure generating

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

<b>Chemical Name</b>	<b>CAS Number</b>	<b>Concentration</b>
Nickel sulfate	7786-81-4	21 %

### **California Proposition 65 List**

### **WARNING:**

This product can expose users to one or more of the following chemicals which are known to the State of California to cause cancer, birth defects or reproductive harm.

<b>Chemical Name</b>	<b>CAS Number</b>
Nickel sulfate	7786-81-4

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16. OTHER INFORMATION

**VOC (Volatile Organic Compounds):** None

### **HMIS Ratings:**

**Health:** 2 **Flammability:** 0 **Reactivity:** 0 **Personal Protection:** C

**Prepared by:** Allan H. Reed

**SDS Preparation date:** January 30, 2019

**Supersedes previous version:** April 26, 2018.

This SDS contains revisions in the following section(s): 12, 14.

The information contained herein is accurate to the best of our knowledge. Technic Inc. makes no warranty of any kind, express or implied, concerning the safe use of this material in any process or in combination with other substances.

End of Safety Data Sheet