TECHNIC, INC. SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name: GOLD POWDER 545

Product Code: 12-545

Recommended use: Conductive filler; for industrial use only.

Supplier:

Technic Inc. Current SDS preparation date: March 15, 2016
1 Spectacle Street Original SDS preparation date: March 15, 2016

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

Gold (metallic) 7440-57-5 231-165-9 100%

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 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 spray. In case of fire, cool endangered containers with water spray.

Unsuitable extinguishing media: High pressure water jet.

Specific hazards in case of fire: May react with incompatible materials (see Section 10) under fire conditions.

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. 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 suitable method for gold recovery. 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:

<u>Ingredient</u> <u>ACGIH TLV</u> <u>OSHA PEL</u> <u>Other Limits</u>

There are no exposure limits established for this material.

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory protection:

Wear appropriate dust mask or approved respirator when using this material.

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.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid, metal powder

Color: Yellow Odor: None

Odor threshold: Not available

pH: Not applicable

Melting/freezing point: 1065 °C (1949 °F) Initial boiling point: Not determined

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 ($H_2O = 1$) @25 °C: 19.3

Solubility: Insoluble in water at 20 °C; soluble in aqua regia and alkaline cyanide solutions

Partition coefficient octanol/water: Not applicable

Auto-ignition temperature: Not applicable **Decomposition temperature**: Not applicable

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: Reaction with ammonia may form an explosive product when dried.

Conditions to avoid: None reported.

Incompatible materials: Halogens, ammonia and hydrogen peroxide.

Hazardous decomposition products: None reported.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

Inhalation: Inhalation of powder can cause mild, non-specific irritation of nasal and

respiratory passages.

Ingestion: Non-specific symptoms may occur due to presence of particulate material.

Skin Contact: No reported effects.

Eye Contact: Metallic particles will cause mechanical irritation to eye tissue.

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

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: None reported; gold is non-toxic.

Acute Dermal Toxicity: None reported; gold is non-toxic.

Acute Inhalation Toxicity: None reported; gold is non-toxic.

Acute Eye Irritation: Metal particles cause mechanical irritation to eye tissue.

Dermal Irritation: None reported; gold is non-irritating.

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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: There are no data reported for this material.

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

Bio-accumulative potential: There are no data reported for this material.

Mobility in soil: There are no data reported for this material.

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 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_NoneImmediateDelayedFireReactivePressure generating
SARA 313: This product contains the following SARA 313 Toxic Release Chemicals. Chemical Name CAS Number Concentration None
The following product components are cited on the lists below: Chemical Name CAS Number List Citations California Proposition 65 List
SECTION 16. OTHER INFORMATION
VOC (Volatile Organic Compounds): None
HMIS Ratings:
HMIS Ratings: Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: C
Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: C
Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: C Prepared by: Allan H. Reed
Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: C Prepared by: Allan H. Reed SDS Preparation date: March 15, 2016 Supersedes previous version: New SDS.