

Safety Data Sheet

Product No. 82150-5 to 82180-100 Pelco® NanoXact™ Gold Colloids, 5 to 100 nm

Size Nanoparticles

Issue Date (09-15-15)

Review Date (08-31-17)

Section 1: Product and Company Identification

Product Name: Pelco® NanoXact™ Gold Colloids, 5 to 100 nm

Size Nanoparticles

Synonym: gold, nano-scale gold, gold nanoparticles, colloidal gold

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day

CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

2.1 Classification of the substance or mixture: This product is not subject to GHS classification as a hazardous substance.

2.2 Label elements

Hazard Pictograms: NA

Signal Word: NA

Hazard Statements: NA

Precautionary Statements: NA

2.3 Other hazards

Health Effects:

NFPA Hazard Rating: Health: 0; Fire: 0; Reactivity: 0

HMIS® Hazard Rating: Health: 0; Fire: 0; Reactivity: 0

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:

PBT: ND

vPvB: ND

Emergency overview:

Appearance: Opaque dark red/brown or red/gold liquid.

Immediate effects: May be irritating to skin, eyes and digestive tract.

Potential health effects

Primary Routes of entry: Skin, ingestion

Signs and Symptoms of exposure: Exposure to gold compounds can cause contact dermatitis. The toxicological properties have not been thoroughly investigated. The data supplied are for closely related compounds. No data available.

Eyes: May cause eye irritation; prolonged exposure may cause eye damage.

Skin: May be harmful if absorbed through skin; may cause skin irritation.

Ingestion: May be harmful if ingested.

Inhalation: May be harmful if inhaled; may cause respiratory tract irritation.

Chronic Exposure: ND

Chemical Listed as Carcinogen or Potential Carcinogen: No

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

Principle Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m ³	ACGIH TLV mg/m ³	NTP Carcinogen	IARC Carcinogen	OSHA regulated Carcinogen
Gold (as colloid) (7440-57-5)	0.005	ND	ND	No	No	No
Tannic acid (1401-55-4)	trace	ND	ND	No	No	No
Water (7732-18-5)	>99	NA	NA	No	No	No

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Remove contacts if present. Immediately flush the eyes with water for at least 10-15 minutes. Seek medical attention if irritation persists.

Skin Contact: Wash the affected area with soap and water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

Inhalation: If breathed in, move person to fresh air. If not breathing, give artificial respiration.

Ingestion: If the person is conscious, rinse their mouth out with water. Never give anything by mouth to an unconscious person.

Note to physician

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: ND

Flammable Limits: ND

Auto-ignition point: ND

Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus for fire-fighting if necessary.

Unusual Fire and Explosion Hazards: None

Hazardous combustion products: None

DOT Class: Not regulated.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Avoid breathing vapors, mist or gas. Small spills can be mixed with vermiculite or sodium carbonate and swept up or diluted/flushed with water to dilute according to local, state and federal guidelines. Solid surface should be wiped with a detergent-based cleaner to clean any remaining materials.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Avoid contact with skin, eyes and clothing. Avoid repeated or prolonged exposure. Store in closed container away from light. Storage class (TRGS 510): Non-combustible liquids.

Storage temperature: 4-25°C (39-77°F). **Do not freeze.**

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: None

Personal Protection Equipment

Respiratory protection: Not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Protective gloves: Wear protective gloves.

Skin protection: Wear protective clothing.

Eye protection: Safety glasses.

Additional clothing and/or equipment: None required

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Dark red/brown or red/gold, opaque liquid with suspended gold particles 5-150 nm in diameter.

Odor (threshold): ND

Specific Gravity (H₂O=1): 1.0001 g/cm³ @ 25°C

Vapor Pressure (mm Hg): ND

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: ND

Freezing point / melting point: ND

pH: ND

Solubility in Water: Particles are insoluble

Molecular Weight (of gold): 196.97

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Freezing

Materials to Avoid (Incompatibility): ND

Hazardous Decomposition Products: May be formed under fire conditions; nature of decomposition products unknown.

Hazardous Polymerization: ND

Section 11: Toxicological Information

Results of component toxicity test performed: ND

Human experience: ND

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information: ND

Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: ND

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Not regulated

IATA: Not regulated

IMO: Not regulated

Marine Pollutant: No

Canadian TDG: Not regulated

Section 15: Regulatory Information

United States Federal Regulations

SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

OSHA Hazards: No known OSHA hazards

SARA 302 Components: No chemicals in this material are subject the reporting requirements of SARA Section 302.

SARA 313 Components: No chemicals in this material are subject to the reporting requirements of SARA Section 313.

SARA 311/312 Hazards: No SARA Hazards..

RCRA: ND

TSCA: Gold, as colloid (7440-57-5), Tannic acid (1401-55-4) are listed.

CERCLA: None listed

State Regulations

California Proposition 65: This product does not contain any chemicals known to the State of CA to cause cancer, birth defects, or any other reproductive harm.

MA Right to know components: No components are subject to the MA Right to Know Act.

PA Right to know components:

Ingredients	CAS #	% by Mass	Hazardous
Gold (as colloid)	7440-57-5	0.005	No
Tannic Acid	1401-55-4	trace	No
Water	231-791-2	>99	No

NJ Right to now components

Ingredients	CAS #	% by Mass	Hazardous
Gold (as colloid)	7440-57-5	0.005	No
Tannic Acid	1401-55-4	trace	No
Water	231-791-2	>99	No

International Regulations

DSL STATUS: All components of this product are on the Canadian DSL list

Canada WHMIS: ND

Europe EINECS Numbers: ND

Section 16: Other Information

Label Information: See section 2

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: ND

Abbreviations used in this document

NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

SDS Form 0013F1V4