

## SDS SHEET

Revision 12-13-17

### Colloidal Gold Nanoparticles in Water

#### 1. PRODUCT IDENTIFICATION

**Chemical Name:** Colloidal Gold Nanoparticles

**Supplier:** NNCrystal US Corporation 534 W Research Center Blvd., Ste 254 Fayetteville, AR 72701

**Product Line:** AU

**Phone:** 479.595.0662

**Recommended Use:** Research and development use only

#### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture:** Not a hazardous substance or mixture.

**GHS Label elements, including precautionary statements:** Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS – none**

#### 3. COMPOSITION/INFORMATION ON INGREDIENT

<u>Substance Name</u>	<u>CAS #</u>
Au	7440-57-5
Tannic Acid	215-753-2
Trisodium Citrate Hydrate	200-675-3
Water	7732-18-5

#### 4. FIRST AID MEASURES

**Inhalation:** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

**Skin contact:** Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

**Eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**Ingestion:** Rinse mouth with water. Seek immediate medical advice.

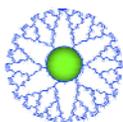
#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing agents:** Product is not flammable. Use water spray, dry chemical or carbon dioxide fire extinguishers.

**Protective equipment:** Wear self-contained respirator. Wear fully protective impervious suit.

#### 6. ACCIDENTAL RELEASE MEASURES

**Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation



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**Measures for environmental protection:** Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:** Dispose contaminated material as waste according to item 12. Ensure adequate ventilation.

## 7. HANDLING AND STORAGE

**Information for safe handling:** Store in refrigerator (2-8°C) under dark conditions. Ensure good ventilation at the workplace.

**Requirements to be met by storerooms and receptacles:** No special requirements.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Appropriate engineering controls:** General industrial hygiene practice.

**Personal protective equipment Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:** impervious clothing - the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure:** No special environmental precautions required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Form:** Liquid form - Nanopowder suspended in solvent.

**Color:** Reddish Purple, wine red.

**Odor:** none

**Melting point/Melting range:** no data

**Boiling point/Boiling range:** 100°C for solvent (water)

**Flash point:** no data

**Ignition temperature:** no data

**Decomposition temperature:** no data

**Explosion limits:** no data

**Vapor pressure:** no data

## 10. STABILITY AND REACTIVITY

**Thermal decomposition / conditions to be avoided:** Not determined; store according to recommended storage conditions.

**Materials to be avoided:** Strong oxidizing agents.

**Dangerous reactions:** No dangerous reactions known.

## 11. TOXICOLOGICAL INFORMATION

**IARC-1:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen.

**NTP-2:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen.

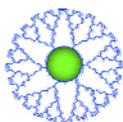
**ACGIH A2:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen.

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**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen.

## 12. ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits.

## 13. DISPOSAL CONSIDERATIONS

Consult local or national regulations for proper disposal.

## 14. TRANSPORT INFORMATION

**DOT:** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

## 15. OTHER INFORMATION

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right to Know Components

No components are subject to the Pennsylvania Right to Know Act.

### New Jersey Right to Know Components

No components are subject to the New Jersey Right to Know Act.

### California Prop. 65 Components

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

## 16. Other Information

### HMIS Rating

**Health hazard:** 0

**Chronic Health Hazard:**

**Flammability:** 0

**Physical Hazard:** 0

### NFPA Rating

**Health hazard:** 0

**Fire Hazard:** 0

**Reactivity Hazard:** 0

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