

## SAFETY DATA SHEET

Version: 2.0  
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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

**Product name:** 5 nm dodecanethiol functionalized gold nanoparticles  
**Product Number:** 3014-80MG

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses**

##### Relevant identified uses

Laboratory chemicals

##### Uses advised against

Not for drug use

#### 1.3 Details of the supplier of the safety data sheet

**Company:** Nanoprobes  
**Address:** 95 Horseblock Road, Unit 1  
Yaphank, NY 11980  
United States  
**Technical Phone:** 877-447-6266, +1 (631) 205-9490  
**Fax:** +1 (631) 205-9493  
**Emergency Phone:** +1 (631) 205-9490  
**Web Site:** [www.nanoprobes.com](http://www.nanoprobes.com)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

#### 2.2 GHS Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]  
Not a hazardous substance or mixture.

#### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance Name** 5 nm Dodecanethiol-functionalized gold nanoparticles

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Oral exposure**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation exposure**

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Dermal exposure**

In case of skin contact wash off with soap and plenty of water.

**Eye exposure**

In case of eye contact, flush eyes with water as a precaution.

#### 4.2 Most important symptoms and effects, both acute and delayed

No data available

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

#### 5.4 Further information

no data available

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container closed. Recommended storage temperature: -20°C

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

#### 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**

Do not let product enter drains.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

- a) **Appearance Form:** black solid
- b) **Odour** no data available
- c) **Odour Threshold** no data available
- d) **pH:** no data available
- e) **Melting point/freezing point** no data available
- f) **Initial boiling point and boiling range** no data available
- g) **Flash point** no data available
- h) **Evaporation rate** no data available
- i) **Flammability** no data available
- j) **Upper/lower flammability or explosive limits** no data available
- k) **Vapour pressure** no data available
- l) **Vapour density** no data available
- m) **Relative density** no data available
- n) **Solubility** Soluble in toluene and THF
- o) **Partition coefficient** no data available
- p) **Auto-ignition temperature** no data available
- q) **Decomposition temperature** no data available
- r) **Viscosity** no data available
- s) **Explosive properties** no data available
- t) **Oxidizing properties** no data available

### **9.2 Other safety information**

No data available

## **10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

no data available

### **10.2 Chemical stability**

Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions**

no data available

### **10.4 Conditions to avoid**

no data available

### 10.5 Incompatible materials

Thiols and strong oxidizing agents

### 10.6 Hazardous decomposition products In the event of fire

See section 5

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Inhalation:** no data available

**Dermal:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitisation:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** no data available

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

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Reproductive toxicity

No data available

### Specific target organ toxicity - single exposure

No data available

### Specific target organ toxicity - repeated exposure

No data available

### Aspiration hazard

No data available

### Additional Information Repeated dose toxicity

No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**DOT (US)** Not dangerous goods

**IMDG** Not dangerous goods

**IATA** Not dangerous goods

## 15. REGULATORY INFORMATION

### SARA 302 Components

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

### SARA 313 Components

SARA 313: 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.

**SARA 311/312 Hazards**

No SARA Hazards

**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**

**DISCLAIMER**

For R&D use only. Not for drug, household or other uses.

**WARRANTY**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Nanoprobes Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.