

## 1.- Identification of the substance/preparation and of the company

- **Identification of the product:** Palladium nanoparticles solution
- **Chemical family:** Palladium Colloid
- **Product name:** DRP-PDNP-COL y DRP-PDNP-PUR
- **Use of the substance/preparation:** Research use only
- **Manufacturer/supplier identification:** DropSens, S.L.  
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## 2 Hazards identification

### Classification of the substance or mixture:

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.  
This substance is not classified as dangerous according to Directive 67/548/EEC.

## 3.- Composition/Information on ingredients

- **Gold Nanoparticles**  
**Synonyms:** PDNP, Palladium Colloid  
**CAS:** - 7440-05-3  
**N° CE:** 231-115-6  
**Molecular weight:** 106.42 g/mol
- **Water**  
**CAS:** 231-791-2  
**Formula:** H<sub>2</sub>O

## 4.- First aid measures

- **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- **After skin contact:** Wash skin with soap and copious amounts of water. Consult a physician.
- **After ingestion:** Make victim drink plenty of water. Never give anything by mouth to an unconscious person, rinse mouth with water. Consult a physician.
- **After eye contact:** Rinse out with plenty of water with the eyelid held wide open for at least 15 minutes. Summon eye specialist.
- **After inhalation:** Move the person into fresh air. If it is necessary, give artificial respiration with oxygen. Summon physician if necessary.

## 5.- Fire-fighting measures

- **Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Special hazards arising from the substance:** Carbon dioxide and carbon monoxide. May form toxic fumes.
- **Special protective equipment for fire fighting:** Wear self contained breathing apparatus for fire fighting if necessary.
- **Further information:** no data available.

### 6.- Accidental release measures

- **Person-related precautionary measures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.. Evacuate personnel to safe areas.
- **Environmental precautions:** Prevent further leakage or spillage if safe to do so. No special environmental precautions required.
- **Methods and materials for containment and cleaning up:** Contain spillage and then with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.
- **Procedures for cleaning/absorption:** Keep in suitable, closed containers for disposal.

### 7.- Handling and storage

- **Handling:** Avoid eye and skin contact. Avoid inhalation of vapour or mist. Take measures to prevent the build up of electrostatic charge.
- **Storage:** Recommended storage temperature 2-8°C. Keep container tightly closed in a dry place, do not freeze.

### 8.- Exposure controls/personal protection

#### Exposure controls

- Respiratory protection Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Hand protection The selected protective gloves have to satisfy the specification of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.
- Eye protection Safety glasses with side-shields conforming to NIOSH (US) or EN166 (EU)
- Skin and body protection Choose body protection according to the amount and concentration of the dangerous substance at the work place. Handle with gloves. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it.
- Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9.- Physical and chemical properties

- **General information:**
  - Form: liquid
  - Colour: metallic.
  - Odour: no data available
- **Important health, safety and environmental information:**
  - pH no data available
  - Melting temperature: No data available.
  - Ignition temperature: Not determined.
  - Upper/lower flammability or explosive limits: No data available.
  - Bulk Density: Not data available.
  - Solubility in water (20°C): soluble.
  - Solubility in other solvent: Not determined.
  - Relative vapour density: Not determined.
  - Refractive index: Not determined.

### 10.- Stability and reactivity

- **Reactivity:** No data available
- **Chemical Stability:** No data available.
- **Possibility of hazardous reactions:** No data available.
- **Incompatible materials:** No data available.
- **Conditions to avoid:** No data available.
- **Hazardous decomposition products:** Other decomposition products – no data available.
- **Further information:** Stable under recommended storage conditions.

### 11.- Toxicological information

- **Acute toxicity:** No data available.
- **Skin corrosion/irritation:** No data available.
- **Serious eye damage/eye irritation:** No data available.
- **Respiratory or skin sensitization:** No data available.
- **Germ cell mutagenicity:** No data available.
- **Carcinogenicity:** No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **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.
- **Potential health effects**
  - **Skin corrosion/irritation:** May cause skin irritation.
  - **Inhalation:** Maybe harmful if inhaled.
  - **Ingestion:** Maybe harmful if swallowed.
  - **Serious eye damage/eye irritation:** May cause eye irritation.
- **Additional Information:** RTECS - No data available.

### 12.- Ecological information:

To the best of our knowledge the ecological effects have not been thoroughly researched.  
Avoid contact with water, wastewaters or soil.

- **Toxicity:** no data available
- **Bioaccumulative potential:** no data available
- **Persistence and degradability:** no data available.
- **Mobility in soil:** no data available.
- **Results of PBT and vPvB assessment:** no data available.
- **Other adverse effects:** no data available.

### 13.- Disposal considerations

- **Product:** Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose this material.
- **Contaminated packaging:** Dispose of as unused product.

### 14.- Transport information

- **Road transport (ADR/RID)** UN-No: -  
ADR class: -
- **Sea transport (IMDG)** UN-No: -  
Correct technical name: -
- **Air transport (IATA)** UN-No: -  
Correct technical name: -

### 15.- Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) 1907/2006 and/or 67/548/EEC and/or 1999/45/EC.

## MATERIAL SAFETY DATA SHEET

*Palladium nanoparticles solution*  
*According to regulation EC N° 1907/2006*  
*Edition date 08/10/2014*  
*Version 1.0*

### **16. Other information**

Date of creation: 08/10/2014

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The contents and format of this MSDS are in accordance with EEC Commission Directive 2001/58/EC, 67/548/EC resp. 99/45/EC

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