

**Material Safety Data Sheet**

Printing date 12/11/2013

Version 1

Reviewed on 12/11/2013

**1. Chemical and Company Identification**

Product Name: Cytodiagnosics Biotin (biotin-PEG-thiol) Silver Nanoparticles

Particle size: 5-100nm

Unit size: 0.5-10ml

Manufacturer/Supplier: CytoDiagnosics Inc., 919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: 905-635-2966

Web: <http://www.cytodiagnosics.com>

Information and Support: [customer\\_service@cytodiagnosics.com](mailto:customer_service@cytodiagnosics.com)

**2. Composition/Information on Ingredients**

**This product contains:** Biotin-PEG-thiol coated colloidal silver particles in water

**Component 1:** Water, >99% (w/v), CAS 7732-18-5

**Component 2:** Silver, 0.1% (w/v), CAS 9015-51-4

**Component 3:** biotin-PEG-thiol, <0.05% (w/v)

**Component 4:** Methyl-PEG-thiol, <0.05% (w/v)

**3. Hazards Identification**

**Emergency overview:** May be harmful if swallowed, contact with skin and by inhalation.

**Routes of Entry:** Inhalation, ingestion, eye contact and skin absorption.

**Effect of overexposure:** This product may cause contact dermatitis

**4. First Aid Measures**

**Skin contact:** In case of contact with skin, immediately remove contaminated clothing and wash extensively with soap and water and seek medical advice if symptoms occurs.

**Ingestion:** If swallowed and person is conscious wash mouth with water, seek medical advice immediately.

**Eye contact:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Inhalation:** In case of accident by inhalation, remove to fresh air. If breathing becomes difficult seek medical advice.

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**5. Fire Fighting Measures**

**Flammable properties and Hazards:** Emits toxic fumes under fire conditions.

**Extinguishing media:** Use extinguishing media appropriate to surrounding fire conditions.

**Special fire fighting procedures:** Wear self-contained breathing apparatus and protective suit.

**6. Accidental Release Measures**

**Spill Procedures:** Isolate contaminated area and wear protective clothing according to section 7. Absorb spillage on appropriate material and place in closed container for proper disposal according to section 13 and wash area with copious amount of water. Make sure to properly ventilate area.

**7. Handling and Storage****Handling:**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation.

Wear laboratory coat, gloves and protective glasses during handling.

In case of insufficient ventilation, wear suitable respiratory equipment.

**Storage:** Keep container tightly closed and away from light. This product retains stability when stored between 2-8°C. Do NOT freeze.

**8. Exposure Controls/Personal Protection**

**General:** Provide adequate local ventilation and availability of safety shower and eyewash station nearby.

**General protection equipment:** Wear laboratory coat

**Protection of hands:** Latex protective gloves

**Breathing equipment:** In case of insufficient ventilation, wear suitable respiratory equipment.

**Eye protection:** Safety glasses

**9. Physical and Chemical Properties**

**Appearance:** Liquid

**Color:** Color varies from brown/yellowish to grey opaque depending on core size of the particles.

**Odour:** Odourless

**pH:** 5-7

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**10. Stability and Reactivity***Stability:* Stable**11. Toxicological Information***Skin contact:* May be harmful in contact with skin.*Ingestion:* May be harmful if ingested.*Eye contact:* May be harmful in contact with eyes.*Inhalation:* May be harmful if inhaled.**12. Ecological Information**

Do not allow product to reach ground water, watercourse, or sewage system.

**13. Disposal Considerations***Disposal:* Consult a licensed waste disposal specialist for proper destruction. Observe all local, state and federal regulations.**14. Transport Information***Hazard class:* Not regulated for transportation.*Product identification number:* Not determined**15. Regulatory Information**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the material safety data sheet contains all of the information required by those regulations.

WHMIS classification: Not determined

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**16. Other Information**

This product is for research purposes, not for diagnostic or therapeutic use.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make independent decisions regarding completeness of the information based on all sources available. Cytodiagnostics Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**END OF MSDS**