Safety Data Sheet (SDS)

Version 2 Reviewed on 1.1.2024

1. Chemical and Company Identification

Product Name: NHS-activated Silver Nanoparticles Kit

Product Use: Laboratory chemical

Manufacturer/Supplier: Cytodiagnostics Inc., 5867 South Garnett Road, Tulsa, Oklahoma 74146 USA

Phone: (866) 344-3954

Web: www.cytodiagnostics-us.com

Information and Support: customer_service-us@cytodiagnostics.com

2. Hazards Identification

Classification of the substance or mixture:

Not a hazardous substance or mixture

GHS Label Elements and Precautionary Statements:

Not a hazardous substance or mixture

Hazards not otherwise classified:

None

3. Composition/Information on Ingredients

This product contains: NHS-activated silver nanoparticles (lyophilized) and 3 buffers.

Components:

Component 1: N-Hydroxysuccinimide (PEG linker)-activated colloidal silver, 0.1mg, CAS# 7440-57-5

Proprietary components (trade secret per 29 CFR 1910. 1200 (i) (1))

Component 2: Protein resuspension buffer – Phosphate buffered saline (non-hazardous)

Component 3: Quencher buffer- Tris base solution pH 8.0 (non-hazardous)

Component 4: Reaction buffer – Phosphate buffered saline (non-hazardous)

4. First Aid Measures

In case of 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 occur.

In case of ingestion: If swallowed and person is conscious wash mouth with water, seek medical advice immediately.

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

If case of inhalation: In case of accident by inhalation, remove to fresh air. If breathing becomes difficult seek medical advice. If not breathing, give artificial respiration.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.

Immediate medical attention and special treatment needed:

No data available

5. Fire Fighting Measures

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the substance or mixture:

Emits toxic fumes under fire conditions.

Special protective equipment and precautions for fire-fighters:

Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment.

Methods and materials for containment and cleaning up:

Keep in a suitable closed container for disposal.

Do not allow product to enter drains. For disposal see section 13.

7. Handling and Storage

Precautions for safe handling:

Use personal protective equipment.

Avoid formation of dust and aerosols.

Provide appropriate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage:

Keep container tightly closed and away from light.

Recommended storage temperature (NHS-activated Silver Nanoparticles): -20°C

Recommended storage temperature (buffers): 2-8°C

8. Exposure Controls/Personal Protection

Appropriate engineering controls: Standard industrial hygiene practice.

Body protection: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand 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.

Respiratory protection: Respiratory protection not required. In case of insufficient ventilation or for nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respiratory cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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

9. Physical and Chemical Properties

	NHS- activated Nanoparticle	***Resuspension Buffer***	***Reaction Buffer***	***Quencher Buffer***

Appearance	Solid, brown/yellow to gray colour	Colourless	Colourless	Colourless
Odour	Odourless	Odourless	Odourless	Odourless
Odour threshold	No data available	No data available	No data available	No data available
pH	7-8	7-8	7-8	7-8
Melting point	No data available	No data available	No data available	No data available
Initial boiling point	No data available	No data available	No data available	No data available
Flash point	No data available	No data available	No data available	No data available
Evaporation rate	No data available	No data available	No data available	No data available
Flammability	No data available	No data available	No data available	No data available
Vapour pressure	No data available	No data available	No data available	No data available
Vapour density	No data available	No data available	No data available	No data available
Relative density	No data available	No data available	No data available	No data available
Solubility	No data available	No data available	No data available	No data available
Partition coefficient (n-octanol/water)	No data available	No data available	No data available	No data available
Auto-ignition temperature	No data available	No data available	No data available	No data available
Decomposition temperature	No data available	No data available	No data available	No data available
Viscosity	No data available	No data available	No data available	No data available

10. Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions

Possibility of hazardous reactions: No data available.

Conditions to avoid: Not applicable.

Materials to avoid: Oxidizing agents, strong acids

Hazardous decomposition products: Hazardous decomposition products may form under fire conditions. – Specific decomposition products not known.

In the event of fire: see section 5

11. Toxicological Information

Acute Toxicity

Oral LD50: No data available

Inhalation LD50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin: No data available - May be harmful in contact with skin.

Ingestion: No data available - May be harmful if ingested.

Eyes: No data available - May be harmful in contact with eyes.

Inhalation: No data available - May be harmful if inhaled.

Germ Cell Mutagenicity: No data available

Carcinogenicity

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 probable, possible or confirmed human carcinogen by ACGIH.

12. Ecological Information

No data available

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 Hazardous Products Regulations and the safety data sheet contains all of the information required by those regulations.

16. Other Information

This product is for laboratory research purposes, not for diagnostic or therapeutic use in humans or animals.

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.

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