

Safety Data Sheet (SDS)

Version 2

Reviewed on 1.1.2024

1. Chemical and Company Identification

Product Name: Silver Enhancement Kit - Membranes

Product Use: Laboratory chemical

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

Phone: (866) 344-3954

Web: www.cytodiagnostics-us.comInformation and Support: customer_service-us@cytodiagnosics.com**2. Hazards Identification****Classification of the substance or mixture:****GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)**

Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2A), H319

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 2), H351

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

GHS Label Elements and Precautionary Statements:**Signal Word:** Danger**Hazard Statement(s)**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using his product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P 330	IF SWALLOWED: Call Poison Center/Doctor of you feel unwell. Rinse mouth.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present an easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P333 + P313	If skin irritation of rash occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified:

None

3. Composition/Information on Ingredients

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This product contains: 250mL of Solution A and 250mL of Solution B

Mixture: Solution A

Component 1: Silver Nitrate, $\geq 0.5\%$ - $< 1.5\%$ (w/v) CAS# 7761-88-8

Component 2: Proprietary Component– Trade Secret per 29 CFR 1910.1200 i 1

Mixture: Solution B

Component 1: Hydroquinone, 0.6% (w/v), CAS#123-31-9

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. Remove contact lenses

If case of inhalation: In case of accident by inhalation, remove to fresh air. 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:

Sodium oxides, Hydrogen chloride gas, Nitrogen oxides, Carbon oxides

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. Avoid contact with skin and eyes. Avoid aerosols or dust formation. Avoid breathing vapours, mist or gas.

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:**

Immediately change contaminated clothing. Wash hands after working with substance.

Provide adequate exhaust ventilation at places where dust and aerosols may form.

Conditions for safe storage:

Keep container tightly closed in a dry and well-ventilated place. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 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.

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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

	Solution A	Solution B
Appearance	Clear solution	Clear solution
Odour	Odourless	Odourless
Odour threshold	no data available	no data available
pH	8	3-4
Melting Point/Freezing point	no data available	no data available
Initial boiling point/boiling range	no data available	no data available
Flash point	no data available	no data available
Evaporation rate	no data available	no data available
Flammability (solid; gas)	no data available	no data available
Lower flammable/explosive limit	no data available	no data available
Upper flammable/explosive limit	no data available	no data available
Vapour pressure	no data available	no data available
Vapour density	no data available	no data available
Relative density	no data available	no data available
Solubility	Dilutable in water	Dilutable in water
Partition coefficient	no data available	no data available
Auto-ignition temperature	no data available	no data available
Decomposition temperature	no data available	no data available
Viscosity	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: No data available

Materials to avoid: Oxidizing agents, strong acids and bases

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. – Oxides of phosphorus, Sodium oxides, Hydrogen chloride gas, Potassium oxides, carbon oxides

Other decomposition products – no data available

In the event of fire: see section 5

11. Toxicological Information
Acute Toxicity

Oral LD50: Oral Rat - female – 367.3 mg/kg (Hydroquinone CAS# 123- 31-9)

Inhalation LD50: No data available

Dermal LD50: Rabbit – male and female - >2000 mg/kg (Hydroquinone CAS# 123- 31-9)

Other information on acute toxicity: No data available

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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: Suspected of causing genetic defects
Carcinogenicity: Suspected of causing cancer
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

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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