Safety Data Sheet

1. Product and Company Identification

Product Identifier

Product Name: Reference Electrode

Product Code: ME-2103D

Recommended Use: The Reference Electrode is intended to be used with the Prolyte Electrolyte Analyzer in a near-patient testing environment to serve as a counter electrode of the measuring electrodes for aid in diagnosis and in monitoring.

Company Diamond Diagnostics Inc.

333 Fiske Street
Holliston, MA 01746

Company Phone Number 508-429-0450
Email support@diamonddiagnostics.com

Emergency Telephone No: 508-429-0450

2. Hazards Identification

GHS- Classification

Classification Short-term (acute) aquatic hazard (Category 2), H401
Long-term (chronic) aquatic hazard (Category 3), H412

Hazard Pictograms:

Signal word None

Hazard Statements
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements **Prevention:**
P273 Avoid release to the environment.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

3. Composition/Information on ingredients

Chemical Name	EC NO.	CAS-No.	Concentration (% w/w)	Classification
Silver	231-131-3	7440-22-4	>= 90 -< = 100%	
Silver-chloride	232-033-3	7783-90-6	< 0.1%	Met. Corr. 1; Aquatic Acute 1; Aquatic Chronic 1; H290, H400, H410 M-Factor - Aquatic Acute: 1,000 - Aquatic Chronic: 100

4. First Aid Measures

General Advice
Move out of dangerous area.
Consult a physician
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do No leave the victim unattended.

Skin Contact
If on skin, rinse well with water.

Inhalation
Move to fresh air.

Ingestion
After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed.
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed.
No data available

5. Fire-Fighting Measures

Extinguishing Media
Suitable extinguishing media:
Use extinguishing measures that are appropriate for local circumstances and the surrounding environment.

Unsuitable extinguishing media:
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from substance or mixture

Silver/silver oxides
Not combustible.
Ambient fire may liberate hazardous vapours.

Advice for Fire-Fighters
In the event of fire, wear self-contained breathing apparatus

Further Information:
Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Personnel Precautions, Protective equipment, and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts.
Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental Precautions
Do not let product enter drains.

Methods for Containment & Cleaning
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts

Reference to other sections
For disposal see section 13.

7. Handling and Storage

Precautions for safe handling
For precautions see section 2

Conditions for safe storage, including any incompatibilities.

Storage Conditions:	Tightly Closed. Dry.
Further information on storage conditions:	See label, package insert or internal guidelines
Storage class (TRGS 510):	Storage class (TRGS 510): 13: Non Combustible Solids
Further information on storage stability:	No decomposition if stored and applied as directed.
Specific end use(s) Specific use(s):	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure Controls / Personnel

Components	CAS-No	Value Type (Form of Exposure)	Control Parameters	Basis
Silver	7440-22-4	TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		PEL	0.1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		TWA	0.1 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

Exposure Controls Change contaminated clothing. Wash hands after working with substance.

Engineering Measures No data available

Personnel 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). Safety glasses

Skin and Body Protection: Handle with impervious gloves.
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Respiratory Protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure Do not let product enter drains.

9. Physical and Chemical Properties

Physical State	Solid
Odor	Not data available
Odor Threshold	Not data available
pH	Not data available
Melting/Freezing Point	Not data available
Initial Boiling Point	Not data available
Flash Point	Not applicable
Evaporation Rate	Not data available
Flammability (solid, gas)	The product is not flammable
Upper/Lower flammability or explosive limits	Not data available

Vapor pressure	Not data available
Vapor density	Not data available
Relative density	Not data available
Water Solubility	Not data available
Partition coefficient: (n-octanol/water)	Not data available
Auto-ignition temperature	Not applicable
Decomposition Temperature °C	Not data available
Viscosity	Not data available
Explosive properties	Not classified as explosive
Oxidizing properties	None

10. Stability and Reactivity

Reactivity	No data available
Chemical Stability	Stable under normal conditions
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	In the event of fire: see section 5
Possibility of hazardous reactions	No data available
Conditions to avoid:	No information available

11. Toxicological Information

Mixture

Acute Toxicity

Oral: 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 sensitization	No data available
Germ cell mutagenicity	No data available

Carcinogenicity

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

NTP: No ingredient 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 on OSHA's list of regulated carcinogens.

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:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Components

Silver

Acute toxicity	Oral: 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 sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
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

silver chloride

Acute toxicity	LD50 Oral - Rat - male and female - > 5,000 mg/kg (OECD Test Guideline 401) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation (OECD Test Guidelin
Germ cell mutagenicity	Test Type: Micronucleus test Test system: Human lymphocytes Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Disilver(1+) sulfate Test Type: Invitro mammalian cell gene mutation test Test system: mouse lymphoma cells Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Disilver(1+) sulfate Method: OECD Test Guideline 474 Species: Rat - male and female Result: negative e 405)
Carcinogenicity	No data available
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

Toxicity **Mixture**	Not data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Endocrine disrupting properties	No data available
Other adverse effects	No data available

Components:

Silver	No data available
Silver Chloride	
Toxicity to fish	semi-static test LC50 - Pimephales promelas (fathead minnow) - 0.0012 mg/l - 96 h (US-EPA) Remarks: (referred to the cation) (in analogy to similar products) The value is given in analogy to the following substances: Silver nitrate
Toxicity to daphnia and other aquatic invertebrates	semi-static test LC50 - Daphnia magna (Water flea) - 0.00022 mg/l - 48 **h** Remarks: (referred to the cation) (ECHA) The value is given in analogy to the following substances: Silver nitrate
Toxicity to bacteria	static test NOEC - Bacteria - 0.025 mg/l - 13.3 min Remarks: (ECHA) (in analogy to similar products) The value is given in analogy to the following substances: Silver nitrate

13. Disposal Considerations

Waste Disposal Method **Product:**	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. Transport Information

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods

IATA (Cargo)	Not dangerous goods
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory Information

SARA 302 Components	This material does not contain any components with a section 302 EHS TPQ.	
SARA 313 Components	The following components are subject to reporting levels established by SARA Title III, Section 313:	
Silver	**CAS-No.** 7440-22-4	**Revision Date** 2007-07-01
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.	

16. Other Information

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Issuing Date	01-February-2024
Revision Date	01-February-2024
Revision Note	No information available
Recommended Restrictions	No Restrictions