# Safety Data Sheet

## 1. Product and Company Identification

**Product Identifier**

**Product Name:** Calcium Electrode

**Product Code:** ME-2150D

**Recommended Use:** The Calcium Electrode is intended to be used with the Prolyte Electrolyte Analyzer in a near-patient testing environment to measure Calcium ion concentration of samples 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

**Substance/mixture:** Mixture

Any concentration shown as a range is protected confidentiality.

There are no ingredients present which within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

## 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.**

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|---|---|
| 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

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|---|---|
| **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.<br><br>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.<br><br>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<br>Inhalation: No data available<br>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)<br>Inhalation: No data available<br>Dermal: No data available |
| **Skin corrosion/irritation** | Skin - Rabbit<br>Result: No skin irritation - 4 h<br>(OECD Test Guideline 404) |
| **Serious eye damage/eye irritation** | Eyes - Rabbit<br>Result: No eye irritation<br>(OECD Test Guidelin |
| **Germ cell mutagenicity** | Test Type: Micronucleus test<br>Test system: Human lymphocytes<br>Result: negative<br>Remarks: (in analogy to similar products)<br>The value is given in analogy to the following substances: Disilver(1+) sulfate<br>Test Type: Invitro mammalian cell gene mutation test<br>Test system: mouse lymphoma cells<br>Result: negative<br>Remarks: (in analogy to similar products)<br>The value is given in analogy to the following substances: Disilver(1+) sulfate<br>Method: OECD Test Guideline 474<br>Species: Rat - male and female<br>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

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|---|---|
| **Toxicity**<br>**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<br>(US-EPA)<br>Remarks: (referred to the cation)<br>(in analogy to similar products)<br>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**<br>Remarks: (referred to the cation)<br>(ECHA)<br>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<br>Remarks: (ECHA)<br>(in analogy to similar products)<br>The value is given in analogy to the following substances: Silver nitrate |

## 13. Disposal Considerations

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| **Waste Disposal Method**<br>**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.**<br>7440-22-4 | **Revision Date**<br>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 |