# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** HSE-Pb Electrode  
**Catalog Number:** 2790485  
**Hach Company**  
P.O.Box 389  
Loveland, CO USA 80539  
(970) 669-3050  
**Emergency Telephone Numbers:**  
(303) 623-5716  
(515)232-2533  
8am - 4pm CST  
**MSDS Number:** M01734  
**Chemical Name:** Not Applicable  
**CAS No.:** Not Applicable  
**Chemical Formula:** Not Applicable  
**Chemical Family:** Not applicable  
**Hazard:** Electrode contains a small amount of mercury.  
**Date of MSDS Preparation:**  
Day: 01  
Month: March  
Year: 2005

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

### Proprietary Components
- **CAS No.:** Proprietary  
- **TSCA CAS Number:** Not applicable  
- **Percent Range:** > 99.0  
- **Percent Range Units:** weight / weight  
- **LD50:** Toxic properties not known  
- **LC50:** Toxic properties not known  
- **TLV:** Not established  
- **PEL:** Not established  
- **Hazard:** Toxic properties unknown.

### Mercury
- **CAS No.:** 7439-96  
- **TSCA CAS Number:** 7439-97-6  
- **Percent Range:** < 0.01  
- **Percent Range Units:** weight / weight  
- **LD50:** None Reported  
- **LC50:** Inhalation rabbit LCLo = 29 mg/m³30hr  
- **TLV:** 0.05 mg/m³ (skin)  
- **PEL:** 0.05 mg/m³ (skin)  
- **Hazard:** Toxic. Cumulative poison. Experimental teratogen. Harmful if inhaled. May cause irritation.

## 3. HAZARDS IDENTIFICATION

**Emergency Overview:**  
**Appearance:** Electrical Sensor  
**Odor:** Not determined
**HMIS:**
- Health: 0
- Flammability: 0
- Reactivity: 0

**Protective Equipment:** X - See protective equipment, Section 8.

**NFPA:**
- Health: 0
- Flammability: 0
- Reactivity: 0
- Symbol: Not applicable

**Potential Health Effects:**
- **Eye Contact:** No effects are anticipated
- **Skin Contact:** No effects are anticipated
- **Skin Absorption:** None reported
- **Target Organs:** None reported
- **Ingestion:** May cause gastrointestinal disturbances
- **Target Organs:** None reported
- **Inhalation:** No data reported.
- **Target Organs:** None reported

**Ingestion (First Aid):** Call physician immediately.

**Inhalation:** Not applicable

**Medical Conditions Aggravated:** None reported

**Chronic Effects:** None reported

**Cancer / Reproductive Toxicity Information:**
- O.S.H.A. Listed: No
- IARC Listed: No
- NTP Listed: No

**Additional Cancer / Reproductive Toxicity Information:** None reported

**Toxicologically Synergistic Products:** None reported

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**4. FIRST AID**

- **Eye Contact:** Flush eyes with water. Call physician if irritation develops.
- **Skin Contact (First Aid):** Wash skin with soap and plenty of water.
- **Ingestion (First Aid):** Call physician immediately.
- **Inhalation:** Not applicable

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**5. FIRE FIGHTING MEASURES**

- **Flammable Properties:** Can burn in fire, releasing toxic vapors.
- **Flash Point:** Not Applicable
- **Method:** Not applicable
- **Flammability Limits:**
  - **Lower Explosion Limits:** Not Applicable
  - **Upper Explosion Limits:** Not Applicable
- **Autoignition Temperature:** Not Determined
- **Hazardous Combustion Products:** carbon monoxide, carbon dioxide, mercury
- **Fire / Explosion Hazards:** None reported
- **Static Discharge:** None reported.
- **Mechanical Impact:** None reported
- **Extinguishing Media:** Use media appropriate to surrounding fire conditions
- **Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

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**6. ACCIDENTAL RELEASE MEASURES**

**Spill Response Notice:**
Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.

**Containment Technique:** Stop spilled material from being released to the environment.

**Clean-up Technique:** Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse.

**Evacuation Procedure:** Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

**Special Instructions (for accidental release):** Not applicable

**304 EHS RQ (40 CFR 355):** Not applicable

**D.O.T. Emergency Response Guide Number:** None

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**7. HANDLING / STORAGE**

**Handling:** Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

**Storage:** Store in a cool place.

**Flammability Class:** Not applicable

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**8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT**

**Engineering Controls:** Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**

- **Eye Protection:** safety glasses with top and side shields
- **Skin Protection:** Not applicable
- **Inhalation Protection:** Not applicable

**Precautionary Measures:** Wash thoroughly after handling. Protect from: heat, moisture

**TLV:** Not Established

**PEL:** Not Established

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**9. PHYSICAL / CHEMICAL PROPERTIES**

- **Appearance:** Electrical Sensor
- **Physical State:** Solid
- **Molecular Weight:** Not Applicable
- **Odor:** Not determined
- **pH:** Not Applicable
- **Vapor Pressure:** Not Applicable
- **Vapor Density (air = 1):** Not Applicable
- **Boiling Point:** Not Applicable
- **Melting Point:** Not Determined
- **Specific Gravity (water = 1):** Not Applicable
- **Evaporation Rate (water = 1):** Not Applicable
- **Volatile Organic Compounds Content:** Not Applicable
- **Partition Coefficient (n-octanol / water):** Not Applicable

**Solubility:**

- Water: Not Soluble
- Acid: Not Determined
- Other: Not Determined

**Metal Corrosivity:**

- Steel: Not Applicable
- Aluminum: Not Applicable

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**10. STABILITY / REACTIVITY**

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Heat, Excess moisture

**Reactivity / Incompatibility:** None reported

**Hazardous Decomposition:** No hazardous decomposition products known.

**Hazardous Polymerization:** Will not occur.

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**11. TOXICOLOGICAL INFORMATION**
Product Toxicological Data:
LD50: None Reported
LC50: None Reported

Dermal Toxicity Data: None Reported
Skin and Eye Irritation Data: None Reported
Mutation Data: None Reported
Reproductive Effects Data: None Reported

Ingredient Toxicological Data: Mercury: Inhalation rabbit LCLo = 29 mg/m³/30hr

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.

Ingredient Ecological Information: --
No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D009

Special Instructions (Disposal): The scanning electrode itself is not regulated for disposal. However, the sample solution the electrode was used in contains mercury and should be disposed of in a hazardous waste facility.

Empty Containers: Dispose of empty container as normal trash.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:
D.O.T. Proper Shipping Name: Not Currently Regulated

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DOT Hazard Class: NA
DOT Subsidiary Risk: NA
DOT ID Number: NA
DOT Packing Group: NA

I.C.A.O.:
I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA
ICAO Subsidiary Risk: NA
ICAO ID Number: NA
ICAO Packing Group: NA

I.M.O.:
I.M.O. Proper Shipping Name: Not Currently Regulated

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I.M.O. Hazard Class: NA
I.M.O. Subsidiary Risk: NA
I.M.O. ID Number: NA
I.M.O. Packing Group: NA

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit Hazard Class: 9 UN Number 3316

15. REGULATORY INFORMATION

U.S. Federal Regulations:
O.S.H.A.: This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)
E.P.A.:
S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): This product is not hazardous under 29 CFR 1910.1200 and therefore is not covered by Title III under SARA.

S.A.R.A. Title III Section 313 (40 CFR 372): This product contains a chemical(s) subject to the reporting requirements of Section 313 of Title III of SARA.

Mercury
302 (EHS) TPQ (40 CFR 355): Not applicable
304 EHS RQ (40 CFR 355): Not applicable
Clean Water Act (40 CFR 116.4): Not applicable
RCRA: Contains RCRA regulated substances. See Section 13, EPA Waste ID Number.
C.P.S.C.: Not applicable

State Regulations:
California Prop. 65: WARNING - This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Identification of Prop. 65 Ingredient(s): Mercury
Trade Secret Registry: Not applicable
National Inventories:
U.S. Inventory Status: All ingredients of this product are listed on the TSCA 8(b) Inventory (40 CFR 710) OR are Exempt from listing because they are Naturally Occurring Products.
TSCA CAS Number: Not Applicable

16. OTHER INFORMATION

Intended Use: Determination of lead
Revision Summary: Updates in Section(s) 2,

Legend:
NA - Not Applicable w/w - weight/weight
ND - Not Determined w/v - weight/volume
NV - Not Available v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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