World Headquarters Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669-3050

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

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

Emergency Telephone Numbers: (Medical and Transportation) (303) 623-5716 24 Hour Service (515)232-2533 8am - 4pm CST

MSDS No: M01734

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.: 7439976

TSCA CAS Number: 7439-97-6

Percent Range: < 0.01

Percent Range Units: weight / weight

LD50: None Reported

LC50: Inhalation rabbit LCLo = $29 \text{ mg/m}^3/30\text{hr}$

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

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

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

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.

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

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

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

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

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Heat Excess moisture Reactivity / Incomptibility: None reported

Hazardous Decomposition: No hazardous decomposition products known.

Hazardous Polymerization: Will not occur.

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

--

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

--

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

__

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 SAR.

Mercury

302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Mercury 1 lb.

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

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Vendor Information. Technical Judgment. CCINFO CHEM Source/Références CHIMIE. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario

Canada: 30 June 1993.

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.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

HACH COMPANY ©2005