Material Safety Data Sheet

Japanese Encephalitis IgG ELISA

IDENTIFICATION OF THE PREPARATION AND COMPANY NAME.

Product Name: Japanese Encephalitis IgG ELISA
Catalog No: 8402-25
Synonyms: N/A
Product Description: Diagnostic Kit for Japanese Encephalitis Infection
Intended Use: Laboratory Use
Kit Storage: 2-8°C

SECTION 1. HAZARD IDENTIFICATION

- **Classification of the substance or mixture:**
  The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
  - **GHS label elements** Non-Regulated Material
  - **Hazard pictograms:** Non-Regulated Material
  - **Signal word:** Non-Regulated Material
  - **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
  0 % of the mixture consists of component(s) of unknown toxicity:
  Coated Microtiter Strips, Negative Control, EnWash, 10X Wash Buffer, Liquid TMB Substrate, Stop Solution
  5 % of the mixture consists of component(s) of unknown toxicity:
  Ready to Use Conjugate-HRP
  8 % of the mixture consists of component(s) of unknown toxicity:
  Sample Dilution Buffer
  20 % of the mixture consists of component(s) of unknown toxicity:
  Positive Control
- **Classification system:**
  - **NFPA ratings (scale 0-4)**
    | HMIS HEALTH | 0 |
    | HMIS FIRE   | 0 |
    | HMIS REACTIVITY | 0 |
  - **HMSI-ratings: (scale 0-4)**
    | HMIS HEALTH | 0 |
    | HMIS FIRE   | 0 |
    | HMIS REACTIVITY | 0 |
- **Hazard(s) not otherwise classified (HNOC):** None known

SECTION 2. Composition/Information on Ingredients

- **Coated Microtiter Strips:**
  - **Description:** Mixture: consisting of non-regulated material.
  - **Dangerous Components:** Non-Regulated Material

- **Sample Dilution Buffer:**
  - **Description:** Mixture: consisting of non-regulated material.
  - **Dangerous Components:** Non-Regulated Material

- **Positive Control:**
  - **Description:** Mixture: consisting of non-regulated material.
• **Dangerous Components**: Non-Regulated Material

**Negative Control:**
- **Chemical characterization**: Substance
- **CAS No. Description**
  Human Serum (normal)

**Ready to Use Conjugate Diluent:**
- **Description**: Mixture consisting of non-regulated material.
- **Dangerous Components**: Non-Regulated Material

**Liquid TMB Substrate:**
- **Description**: Mixture consisting of non-regulated material.
- **Dangerous Components**: Non-Regulated Material

**EnWash:**
- **Description**: Mixture of substances listed below with non-hazardous additions.
  - **Non-hazardous Components**:
    - 7732-18-5 Highly Purified Water 90-99%

**10x Wash Buffer:**
- **Dangerous Components**:
  - CAS: 7647-14-5 RTECS: VZ4725000 Sodium Chloride
    - ☑️ STOT SE 3, H335 5-10%
  - CAS: 7558-79-4 RTECS: WC 4500000 Sodium Phosphate
    - ☑️ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335-H336 ≤2.5%

**Stop Solution:**
- **Description**: Mixture of substances listed below with non-hazardous additions.
  - **Dangerous Components**:
    - 7664-93-9 Sulfuric Acid ☑️ Skin Corr. 1A, H314 2-12%

**SECTION 3. FIRST AID MEASURES**
- **General information**: No special measures required.
- **After inhalation**: Supply fresh air; consult doctor in case of complaints.
- **After skin contact**: Generally the product does not irritate the skin.
- **After eye contact**: Rinse opened eye for several minutes under running water.
- **After swallowing**: If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**: N/A
- **Most important symptoms and effects, both acute and delayed**: No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**: No further relevant information available.

**SECTION 4. FIRE-FIGHTING MEASURES**
- **Suitable extinguishing agents**: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**: No further relevant information available.
- **Advice for firefighters**:
  - **Protective equipment**: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

**SECTION 5. ACCIDENTAL RELEASE MEASURES**
- **Personal precautions, protective equipment and emergency procedures**: Not required.
· Environmental precautions: Dilute with plenty of water. Do not allow to enter sewers/surface or ground water.
· Methods and material for containment and cleaning up:
  Dispose of the collected material according to regulations.
  Absorb with liquid-binding material (i.e sand, diatomite, acid binders, universal binders, sawdust).
· Reference to other sections:
  See Section 6 for information on safe handling.
  See Section 7 for information on personal protection equipment.
  See Section 12 for disposal information.

SECTION 6.  HANDLING AND STORAGE

· Precautions for safe handling: No special measures required.
· Information about protection against explosions and fires: No special measures required.
· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: None.
· Specific end use(s): No further relevant information available.

SECTION 7.  EXPOSURE CONTROL / PERSONAL PROTECTION

· Additional information about design of technical systems: No further data; see section 6.
· Control parameters:
  Stop Solution:
  · Components with occupational exposure limits:
    7664-93-9 Sulfuric Acid
    PEL  Long-term value: 1mg/m³
    REL  Long-term value: 1mg/m³
    TLV  Long-term value: 0.2* mg/m³ *as thoracic fraction
  Other Components:
  · Components with occupational exposure limits: The rest of the product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  · Additional information: The lists that were valid during the creation of this SDS were used as basis.
  · Exposure controls:
    · General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
    · Breathing equipment: Not required.
    · Protection of hands:
      Protective gloves.
      · Material of gloves: Nitrile rubber, NBR.
      · Penetration time of glove material: The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
    · Eye protection:
      Goggles recommended during refilling.

SECTION 8.  PHYSICAL AND CHEMICAL PROPERTIES

· Information on basic physical and chemical properties
<table>
<thead>
<tr>
<th></th>
<th>Coated microtiter strips</th>
<th>Sample Diluent Buffer</th>
<th>Positive Control</th>
<th>Negative Control</th>
<th>Ready to Use Conjugate-HRP</th>
<th>EnWash</th>
<th>10X Wash Buffer</th>
<th>Liquid TMB substrate</th>
<th>Stop Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Strip</td>
<td>Liquid</td>
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<tr>
<td>Color</td>
<td>Colorless</td>
<td>Clear</td>
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<td>Odorless</td>
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<td>Flammability (solid, gas)</td>
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<td></td>
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<td>Auto igniting</td>
<td>Product is not self-igniting</td>
<td>Not determined</td>
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<td></td>
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<td></td>
<td></td>
<td>Product is not self-igniting</td>
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<td>Danger of explosion</td>
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<td>Product does not present an explosion hazard</td>
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<td>Lower Explosion limits</td>
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<tr>
<td>Vapor density</td>
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<td>Evaporation rate</td>
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<td></td>
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<td>Solubility in water</td>
<td>Insoluble</td>
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<td>Fully miscible</td>
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<td>Dynamic Viscosity</td>
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<td></td>
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<td>Kinematic Viscosity</td>
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<tr>
<td>Other</td>
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<td></td>
<td></td>
<td></td>
<td>No further relevant information available</td>
</tr>
</tbody>
</table>
SECTION 9. STABILITY AND REACTIVITY

- **Reactivity**: No further relevant information available.
- **Chemical stability**: Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: Strong oxidizing agents.
- **Hazardous decomposition products**: No dangerous decomposition products known.

SECTION 10. TOXICOLOGICAL INFORMATION

- **Information on toxicological effects**:
  - **Acute toxicity**:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral LD50 (mg/kg)</th>
<th>Dermal LD50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>4000 (mouse)</td>
<td>&gt;10000 (rabbit)</td>
</tr>
<tr>
<td>Sodium Phosphate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfuric Acid</td>
<td>2140 (rat)</td>
<td>375 (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect**:
  - **On the skin**: May be irritating (stop solution). Others no irritating effect.
  - **On the eye**: May be irritating (stop solution). Others no irritating effect.

- **Additional toxicological information**:
The product is not subject to classification according to internally approved calculation methods for preparation (excluding 10X Wash Buffer and Stop Solution).
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**:
  - **IARC (International Agency for Research on Cancer)**:
    - Group 1 – Carcinogenic to humans
    - Group 2A – Probably carcinogenic to humans
    - Group 2B – Possibly carcinogenic to humans
    - Group 3 – Not classifiable as to its carcinogenicity to humans
    - Group 4 – Probably not carcinogenic to humans

<table>
<thead>
<tr>
<th>Compound</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>3</td>
</tr>
</tbody>
</table>

- **NTP (National Toxicology Program)**: None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**: None of the ingredients are listed.

SECTION 11. ECOLOGICAL INFORMATION

- **Aquatic toxicity**:

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC50 (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric Acid</td>
<td>22 (daphnia)</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>340.7-469.2 (water flea)</td>
</tr>
</tbody>
</table>
· **Persistence and degradability**: No further relevant information available.
· **Behavior in environmental systems**:
  · **Bioaccumulative potential**: No further relevant information available.
  · **Mobility in soil**: No further relevant information available.
· **Additional ecological information**:
  · **General notes**: Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
  · **Results of PBT and vPvB assessment**:
    · **PBT**: Not applicable.
    · **vPvB**: Not applicable.
· **Other adverse effects**: No further relevant information available.

### SECTION 12. DISPOSAL CONSIDERATIONS

· **Waste treatment methods**:
· **Recommendation**: Smaller quantities can be disposed of with household waste.
  Observe all federal, state and local environmental regulations when disposing of this material.
· **Uncleaned packaging**
  · **Recommendation**: Disposal must be made according to official regulations.
  · **Recommended cleansing agent**: Water, if necessary with cleansing agents.

### SECTION 13. TRANSPORT INFORMATION

| · UN-Number: | · DOT, ADR, ADN, IMDG, IATA | Non-Regulated Material |
| · UN proper shipping name: | · DOT, ADR, ADN, IMDG, IATA | Non-Regulated Material |
| · Transport hazard class(es): | · DOT, ADR, ADN, IMDG, IATA | Non-Regulated Material |
| · Class: | Non-Regulated Material |
| · Packing group: | · DOT, ADR, IMDG, IATA | Non-Regulated Material |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user: | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |
| · UN "Model Regulation": | Non-Regulated Material |

### SECTION 14. REGULATORY INFORMATION

· **SARA (Superfund Amendments and Reauthorization)**:
  · **Section 355 (extremely hazardous substances)**:
    7647-01-0 Hydrochloric acid
    7664-93-9 Sulfuric Acid
  · **Section 313 (Specific toxic chemical listings)**:
    7647-01-0 Hydrochloric acid
    7664-93-9 Sulfuric Acid
· **TSCA (Toxic Substances Control Act)**:
  54-64-8 Thiomersal
  1310-73-2 Sodium Hydroxide
  7732-18-5 Highly Purified Water
  7647-14-5 Sodium Chloride
1185-53-1 Tris-HCl
9005-64-5 Tween 20

· **California Proposition 65:**
  · **Chemicals known to cause cancer:**
    None of the ingredients are listed.
  · **Chemicals known to cause reproductive toxicity for females:**
    None of the ingredients are listed.
  · **Chemicals known to cause reproductive toxicity for males:**
    None of the ingredients are listed.
  · **Chemicals known to cause developmental toxicity:**
    None of the ingredients are listed.

· **New Jersey Right-to-Know List:**
  1310-73-2 Sodium Hydroxide
  7647-01-0 Hydrochloric acid

· **New Jersey Special Hazardous Substance List:**
  1310-73-2 Sodium Hydroxide
  7647-01-0 Hydrochloric acid

· **Pennsylvania Right-to-Know List:**
  1310-73-2 Sodium Hydroxide
  7647-01-0 Hydrochloric acid

· **Pennsylvania Special Hazardous Substance List:**
  1310-73-2 Sodium Hydroxide
  7647-01-0 Hydrochloric acid

· **Carcinogenic categories:**
  · **EPA (Environmental Protection Agency):**
    None of the ingredients are listed.
  · **TLV (Threshold Limit Value established by ACGIH):**
    7647-01-0 Hydrochloric acid
    7664-93-9 Sulfuric acid
  · **NIOSH-Ca (National Institute for Occupational Safety and Health):**
    None of the ingredients are listed.

· **GHS label elements** Non-Regulated Material
  · **Hazard pictograms**: Non-Regulated Material
  · **Signal word**: Non-Regulated Material
  · **Hazard statements**: Non-Regulated Material

· **National regulations:**
The product is subject to be classified according to the latest version of the regulations on hazardous substances.
Non-Regulated Material (only for Negative Control)

· **Chemical safety assessment**: A Chemical Safety Assessment has not been carried out.

**SECTION 15. OTHERS**
The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of...
this information and the suitability of the material or product for any particular purpose.

- **Last revision:** 4
- **Abbreviations and acronyms:**
  - ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
  - ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit

*Data compared to the previous version altered.*