MATERIAL SAFETY DATA SHEET

Zearalenone ELISA kit

1. IDENTIFICATION OF THE PREPARATION AND COMPANY.
1.1. Identification of the product:
Product name: Zearalenone ELISA kit
Product classification: In-vitro diagnostics
Product number: 5148-8

1.2. Manufacturer identification
Company Name: Diagnostic Automation, Inc.
Address: 21250 Califa Street, Suite 102 and 116, Woodland Hills, California 91367
Phone: (818) 591-3030 Fax: (818) 591-8383
E-mail: onestep@rapidtest.com
Website: http://www.rapidtest.com
Emergency Telephone number: Please contact the local hospitals.
2. Wash Buffer, Sample Diluent, and Standards
The Wash Buffer, Sample Diluent and standards contain no toxic or otherwise hazardous components.

3. Specific Antibody
3.1 Chemical Characterization / Information on Ingredients

<table>
<thead>
<tr>
<th>Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>aqueous, protein-containing mixture preserved with 0.01 % potassium</td>
</tr>
<tr>
<td>tetraiodomercurate (K₂HgI₄, resulting complex of KI and HgI₂).</td>
</tr>
</tbody>
</table>

| CAS-No. (HgI₂) | 7774-29-0 |
| EINECS-No. (HgI₂) | 231-873-8 |
| Classification | Very toxic, irritant. |

3.2 Hazards Identification
Warnings: Toxic if swallowed. Irritates eyes, respiratory tract and skin. In case of breathing in or skin contact, a sensitization may be possible. Because of a possible mutagenic effect, an irreversible defect is possible (affected organs are kidneys and CNS). In case of contact with acids, the development of toxic gases is possible.

3.3 First Aid Measures

| Eye Contact | Promptly wash eyes with water for at least 15 minutes. Seek medical advice. |
| Skin Contact | Flush skin with copious amounts of water and soap. |
| Ingestion | Wash out mouth with water provided person is conscious. Seek medical advice. |
| Inhalation | Remove to fresh air. If breathing becomes difficult, seek medical advice. |
| Changing Clothes | In case of sever contamination |

3.4 Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Extinguishing Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water spray. Use carbon dioxide, dry chemical powder or appropriate foam.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedure</td>
</tr>
<tr>
<td>Wear self-containing breathing apparatus and special protective clothes.</td>
</tr>
<tr>
<td>Unusual Fire Procedure</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Thermal decomposition</td>
</tr>
<tr>
<td>Emits toxic mercury fumes under fire conditions.</td>
</tr>
</tbody>
</table>

3.5 Accidental Release Measures

| Personal Protection | Protective glasses, rubber gloves and protective clothing. |
| Steps after Spillage | Remove spilled fluid onto an inert material. Ventilate area. Wash area with soap solution. Collect contaminated fluid and material in a special closable container. |
| Absorbent material | No restriction. |
| Waste Disposal method | Consult a specialist for disposal or the spilled substance. |

3.6 Handling and Storage
Handling

Wear protective clothing. Avoid contact with eyes, skin and clothes. Open and handle container carefully. Thoroughly washing after use is recommended.

Storage

Store between +2°C and +8°C.

3.7 Exposure Controls / Personal Protection

TLV

No.

Personal Protection

Protective glasses, rubber gloves and clothing. Thoroughly washing after use is recommended.

3.8 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Red</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>pH-Value</td>
<td>6.2-6.7</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100°C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>complete</td>
</tr>
<tr>
<td>Ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
</tbody>
</table>

3.9 Stability and Reactivity

Hazardous Decomposition Products

Mercury

Hazardous Polymerization

Will not occur

3.10 Toxicological Information

LD₅₀ Oral (rat) 18 mg/kg
LD₅₀ Skin (rat) 75 mg/kg
LD₅₀ Oral (man) 357 mg/mg
LD₅₀ Inhalation Not known

3.11 Ecological Information

Water Hazard Class 1 (own specification)

4. Conjugate

4.1 Chemical Characterization / Information on Ingredients

Character aqueous, protein-containing mixture preserved with 0.01 % methylisothiazolone and 0.01 % bromonitrodioxane and 10 mg/l Proclin™ 300.

CAS-No. Not determined

4.2 Hazards Identification

Warnings: Though complete toxicity information on this conjugate buffer is not available, none of its components are known to be toxic or hazardous at use concentrations. The buffer contains the mercury-free preservatives methylisothiazolone (0.01%), bromonitrodioxane (0.01%) and Proclin™ 300, which can produce adverse health effects in their concentrated forms. For more specific
toxicity information on these components, refer to the material safety data sheets available from the manufacturer (Boehringer Mannheim Corporation and Rohm and Haas, respectively).

4.3 First Aid Measures

**Eye Contact**
Promptly wash eyes with water or normal saline, lifting the upper and lower lids occasionally, until no evidence of chemical remains (approximately 15 minutes). Seek medical advice.

**Skin Contact**
Wash thoroughly with water and soap.

**Ingestion**
Wash out mouth with water provided person is conscious. Drink one cup of water or milk to dilute in the stomach. Seek medical advice.

**Inhalation**
No special first aid measures necessary; inhalation or aspiration unlikely.

4.4 Fire-Fighting Measures

**Flash point**
Non-flammable

**Extinguishing Media**
No restriction.

**Special Fire Fighting Procedure**
No special procedures are required. As with any fire, wear full protective clothing and self-contained breathing apparatus.

**Unusual Fire Fighting Procedure**
None

4.5 Accidental Release Measures

**Personal Protection**
Protective glasses, rubber gloves and special protective clothing.

**Steps after Spillage**
Absorb spill with an absorbent cloth, then wash the area thoroughly with soap and water.

**Waste Disposal Method**
Observe all federal, state and local laws when considering waste disposal methods.

4.6 Handling and Storage

**Handling**
Wear protective clothing. Avoid contact with eyes, skin and clothes. Open and handle container carefully. Thoroughly washing after use is recommended.

**Storage**
Store between +2°C and +8°C.

4.7 Exposure Controls / Personal Protection

**Personal Protection**
Protective glasses, rubber gloves and clothing. Thoroughly washing after use is recommended

4.8 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
<th>Flash Point</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Red</td>
<td>Ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
<td>Explosion Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>pH-Value</td>
<td>6.2-6.7</td>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100 °C</td>
<td>Solubility in Water</td>
<td>complete</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
<td>Viscosity</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4.9 Stability and Reactivity

Stability  Chemically stable
Incompatibilities  None known
Hazardous Decomposition Products  Toxic fumes and carbon monoxide, carbon dioxide, nitro-gen oxides
Hazardous Polymerization  Will not occur

4.10 Toxicological Information

N/A

4.11 Ecological Information

N/A

5. TMB (Substrate for HRP Conjugate)

5.1 Chemical Characterization / Information on Ingredients

Character  Product contains 0.05% Tetramethyl Benzidine (TMB)
CAS-No.  54827-17-7
Classification  Hazardous. Irritant

5.2 Hazard Identification

Warnings: Toxic if swallowed. Irritant, handle with care.

5.3 First Aid Measures

Eye Contact  Promptly wash eyes with water for at least 15 minutes. Seek medical advice.
Skin Contact  Flush skin with copious amounts of water.
Ingestion  Wash out mouth with water provided person is conscious. Seek medical advice.
Inhalation  N/A
Changing Clothes  In case of severe contamination

5.4 Fire-Fighting Measures

Extinguishing Media  Water spray, carbon dioxide, dry chemical powder or appropriate foam
Special Fire Fighting Procedure  N/A
Unusual Fire Fighting Procedure  Emits toxic fumes under fire conditions
Thermal Decomposition  Dangerous decomposition is not anticipated

5.5 Accidental Release Measures

Personal Protection  Protective glasses, gloves and clothing.
Steps after Spillage  Remove spilled fluid onto an inert material. Wash area with soap
5.6 Handling and Storage

Handling  Wear protective clothing. Open and handle container carefully.
Storage  Store between +2°C and +8°C.
Other Precautions  N/A

5.7 Exposure Controls / Personal Protection

TLV  No.
Personal Protection  Protective glasses, gloves and clothing.

5.8 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>pH-Value</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
</tbody>
</table>

5.9 Stability and Reactivity

Hazardous Reactions  N/A
Hazardous Decomposition Products  Toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides

5.10 Toxicological Information

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD₅₀ Oral</td>
<td>Not known</td>
</tr>
<tr>
<td>LD₅₀ Skin</td>
<td>Not known</td>
</tr>
<tr>
<td>LD₅₀ Inhalation</td>
<td>Not known</td>
</tr>
</tbody>
</table>

5.11 Ecological Information

Water Hazard Class 1 (own specification)

6. Stop-Solution (0.5 M Sulfuric Acid)

6.1 Chemical Characterization / Information on Ingredients

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character</td>
<td>Product contains 0.5 M Sulfuric Acid (H₂SO₄)</td>
</tr>
<tr>
<td>CAS-No of H₂SO₄</td>
<td>7664-93-9</td>
</tr>
<tr>
<td>EINECS-No.</td>
<td>213-639-5</td>
</tr>
<tr>
<td>Classification</td>
<td>Very caustic, toxic, possible carcinogen</td>
</tr>
</tbody>
</table>
6.2 Hazard Identification
Warnings: Very caustic, toxic, possible carcinogen after inhalation, irritant, handle with care.

6.3 First Aid Measures
Eye Contact Promptly wash eyes with water for at least 15 minutes. Seek medical advice.
Skin Contact Flush skin with copious amounts of water and soap.
Ingestion Wash out mouth with water provided person is conscious. Seek medical advice.
Inhalation Remove to fresh air. If breathing becomes difficult, seek medical advice.
Changing Clothes In case of severe contamination.

6.4 Fire-Fighting Measures
Extinguishing Media Do not use water. Use carbon dioxide, dry chemical powder or appropriate foam.
Special Fire Fighting Procedure Wear self-containing breathing apparatus and special protective clothes.
Unusual Fire Fighting Procedure Emits toxic fumes under fire conditions.
Thermal Decomposition N/A

6.5 Accidental Release Measures
Personal Protection Protective glasses, gloves and clothing.
Steps after Spillage Remove spilled fluid onto an inert material. Ventilate area. Wash area with soap solution. Collect contaminated fluid and material in a special closable container.
Absorbent Material No restriction
Waste Disposal Method Consult a specialist for disposal of the spilled substance.

6.6 Handling and Storage
Handling Wear protective clothing. Open and handle container carefully
Storage Store between +2°C and +8°C.
Other Precautions N/A

6.7 Exposure Controls / Personal Protection
TLV No
Personal Protection Protective glasses, rubber gloves and acid resistant clothing; breathing apparatus in severe cases: thoroughly washing after use is recommended.

6.8 Physical and Chemical Properties
Physical State Liquid Flash Point N/A
Color Colorless Boiling Point >100°C
Odor: N/A  
Solubility in Water: Soluble  
Vapor Pressure: N/A

6.9 Stability and Reactivity

Hazardous Reactions: Incompatibility with bases, halogenides and metals.
Hazardous Decomposition Products: Sulfur oxides.

6.10 Ecological Information

<table>
<thead>
<tr>
<th></th>
<th>Oral</th>
<th>Skin</th>
<th>Inhalation (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>2140 mg/kg</td>
<td>Not Known</td>
<td>510 mg/m³ (2h)</td>
</tr>
<tr>
<td>LD50 Skin</td>
<td>135 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.11 Toxicological Information

Water Hazard Class: 1 (own specification)

7. Disposal Considerations
Observe all Federal, State and Local laws concerning Health and Pollution.

8. Transport Information
N/A

9. Regulatory Information
N/A

10. Other Information
The information herein is believed to be correct as of the given data but is provided without warranty of any kind. The recipient of our products is responsible for observing any laws and guidelines applicable.
<table>
<thead>
<tr>
<th>Date Adopted</th>
<th>2017-03-22</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REF</strong> 5148-8</td>
<td>Zearalenone ELISA kit</td>
</tr>
</tbody>
</table>

**DIAGNOSTIC AUTOMATION, INC.**  
21250 Califa Street, Suite 102 and 116, Woodland Hills, CA 91367  
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**ISO 13485-2003**  

Revision Date: 2007-10-22