1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: Estradiol ELISA
Article number: IB79331

1.2 Relevant identified uses of the substance or mixture and uses advised against

The Estradiol Assay is an enzyme immunoassay for the in-vitro diagnostic quantitative determination of Estradiol in human serum.

Kit content (name and label reference):

- Microtiterplate [SORB|MT]
- Standard 0-5 [CAL|0-5]
- Control 1 & 2 [CONTROL|1/2]
- Enzyme Conjugate [ENZ|CONJ]
- TMB-Substrate Solution [SUB|TMB]
- Stop Solution [STOP|SOLN]
- Wash Buffer Concentrate [WASH|SOLN|10x]

1.3 Details of the supplier of the safety data sheet

Manufactured for:
Immuno-Biological Laboratories, Inc. (IBL-America)
8201 Central Ave NE, Suite P, Minneapolis, MN 55432
Toll Free: (888) 523-1246 Fax: (763) 780-2988
www.ibl-america.com / info@ibl-america.com

1.4 Emergency telephone number

Toll Free: (888) 523-1246 (during opening time: 8:00 h – 17:00 h CT)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Due to the low concentration of hazardous ingredients none of the listed components of this product may be classified as dangerous according to Directive 1999/45/EC, 67/548/EEC and Regulation (EC) 1272/2008.

2.2 Label elements

This product is not under labelling according to Regulation (EC) n. 1272/2008.

2.3 Other hazards

No one.

Note: this product is intended for laboratory use by professional uses only. Use appropriate personal protective equipment while working with the reagents provided.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Ingrediente</th>
<th>CAS No</th>
<th>Containing</th>
<th>Classification according to regulation (EC) No 1272/2008 (CLP)</th>
<th>Pictogram, Signal</th>
<th>Specific Conc. Limits, M-factors</th>
<th>Dir. 67/548/EEC</th>
</tr>
</thead>
</table>

Date of issue: March 18, 2015
Replaces document dated: -
3.2 Mixtures

**Enzyme Conjugate, Wash Buffer Concentrate, Sample Diluent, Control 1&2**

<table>
<thead>
<tr>
<th>Ingrediente</th>
<th>CAS No (EC No)</th>
<th>Containing Conc. (%)</th>
<th>Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form)</th>
<th>Pictogram, Signal Word Code(s)</th>
<th>Specific Conc. Limits, M-factors</th>
<th>Dir. 67/548/EEC</th>
</tr>
</thead>
</table>
| Proclin 300*        | 55965-84-9     | < 0.0015 %*          | Acute Tox. 3 *  
Acute Tox. 3 *  
Acute Tox. 3 *  
Skin Corr. 1B  
Skin Sens. 1  
Aquatic Acute 1  
Aquatic  
Chronic 1        | H331  
H311  
H301  
H314  
H317  
H400  
H410            | GHS06  
GHS05  
H314: C ≥ 0,6 %  
H315: 0,06 % ≤ C < 0,6 %  
Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %  
Skin Sens. 1; H317: C ≥ 0,0015 %  | T; N  
R: 23/24/25-34/43-50/53  
S: (2-)26-28-36/37/39-45-60-61  |

* Proclin 300 is a mixture of substances of the components, 5-chloro-2-methyl-2H-isothiazol-3-one (EG-nr 247-500-7) and 2-methyl-2H-isothiazol-3-one (3:1).

4. **FIRST AID MEASURES**

4.1 **Description of first aid measures**

General advice: No special measures required. Consult physician in case of complaints.

If inhaled: supply fresh air.

In case of skin contact: Immediately flush skin with plenty of water. Cold water may be used. Remove contaminated clothing and shoes.

In case of eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used.

If swallowed: If swallowed, rinse mouth with plenty of water.

4.2 **Most important symptoms and effects, both acute and delayed**

To our present state of knowledge no symptoms or risks are known.

4.3 **Indication of any immediate medical attention and special treatment needed**

No data available.

5. **FIREFIGHTING MEASURES**

5.1 **Extinguishing media**

Use dry chemical powder, water spray or alcohol resistant foam.

5.2 **Special hazards arising from the substance or mixture**

To the best of our knowledge, no special hazards can be defined.

5.3 **Advice for firefighters**

No data available.
6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear appropriate protective gloves and clothes.

6.2 Environmental precautions
Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections
For personal protection see section 8.
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Use all reagents in accordance with the relevant package insert provided with the product.
Do not smoke, eat, drink or apply cosmetics in areas where kit reagents are handled.
Wear disposable latex gloves when handling reagents.
Never pipet by mouth and avoid contact of reagents and specimens with skin and mucous membranes.
Handling should be done in accordance with the procedures defined by an appropriate national biohazard safety guideline or regulation.

7.2 Conditions for safe storage, including any incompatibilities
Store all reagents as directed in the relevant package insert provided with the product.
Protect TMB-Substrate Solution from UV light.

7.3 Specific end use(s)
This product is intended for laboratory use by professional users only.
(For research use only)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2. Exposure controls
General hygiene directives should be considered.
Keep away from foodstuffs and beverages. Wash hands before breaks and at the end of the working day.

Personal protective equipment
Respiratory protection: Not required.
Skin Protection: Protective gloves of nitril rubber or nature latex, satisfying the norm DIN EN 455
Eye / face protection: Safety glasses with side shields conforming to EN 166 (EU), NIOSH (US)
Body protection: Impenetrable protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Component</th>
<th>(a) Appearance</th>
<th>(b) Odour</th>
<th>(d) pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards and Controls</td>
<td>liquid, colorless</td>
<td>odorless</td>
<td>7.4 ± 0.05</td>
</tr>
<tr>
<td>Enzyme Conjugate</td>
<td>liquid, red</td>
<td>odorless</td>
<td>7.4 ± 0.05</td>
</tr>
<tr>
<td>Microtiterplate</td>
<td>solid, white</td>
<td>odorless</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
**Trade name:** Estradiol ELISA  
**Article number:** IB79331

<table>
<thead>
<tr>
<th>Product</th>
<th>State</th>
<th>Odor</th>
<th>Melting point</th>
<th>Boiling point</th>
<th>Flash point</th>
<th>Evaporation rate</th>
<th>Flammability</th>
<th>Upper/lower flammability</th>
<th>Vapour pressure</th>
<th>Vapour density</th>
<th>Relative density</th>
<th>Solubility(ies)</th>
<th>Partition coefficient: n-octanol/water</th>
<th>Auto-ignition temperature</th>
<th>Decomposition temperature</th>
<th>Viscosity</th>
<th>Explosive properties</th>
<th>Oxidising properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMB-Substrate Solution</td>
<td>liquid, colorless</td>
<td>odorless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no data available</td>
<td>no data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop Solution</td>
<td>liquid, colorless</td>
<td>odorless</td>
<td></td>
<td>&lt;1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no data available</td>
<td>no data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash Buffer Concentrate</td>
<td>liquid, colorless</td>
<td>odorless</td>
<td></td>
<td>7.4 ± 0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no data available</td>
<td>no data available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**For all components**

- (c) Odour threshold: no data available  
- (e) Melting point/freezing point: no data available  
- (f) Initial boiling point and boiling range: no data available  
- (g) Flash point: no data available  
- (h) Evaporation rate: no data available  
- (i) Flammability: no data available  
- (j) Upper/lower flammability or explosive limits: no data available  
- (k) Vapour pressure: no data available  
- (l) Vapour density: no data available  
- (m) Relative density: no data available  
- (n) Solubility(ies): Fully miscible  
- (o) Partition coefficient: n-octanol/water: no data available  
- (p) Auto-ignition temperature: Product is not selfigniting  
- (q) Decomposition temperature: no data available  
- (r) Viscosity: no data available  
- (s) Explosive properties: Product does not present an explosion hazard  
- (t) Oxidising properties: no data available

**9.2 Other informations**

No other information available.

**10. STABILITY AND REACTIVITY**

10.1 **Reactivity:** no data available.

10.2 **Chemical stability:** no data available.

10.3 **Possibility of hazardous reactions:** no data available.

10.4 **Conditions to avoid**

TMB Substrate Solution: Protect from direct UV light, avoid elevated temperatures.

10.5 **Incompatible materials:** no data available.

10.6 **Hazardous decomposition products:** No dangerous decomposition products known.
11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| (a) Acute toxicity                      | no data available |
| (b) Skin corrosion/irritation          | Stop Solution: May cause irritation of the skin. |
| (c) Serious eye damage / irritation    | Stop Solution: May cause irritation of the eyes. |
| (d) Respiratory or skin sensitisation | no data available |
| (e) Germ cell mutagenicity             | no data available |
| (f) Carcinogenicity                    | no data available |
| (g) Reproductive toxicity             | no data available |
| (h) STOT-single exposure               | no data available |
| (i) STOT-repeated exposure             | no data available |
| (j) Aspiration hazard                  | no data available |

Additional Information
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: no data available.
12.2 Persistence and degradabilità: no data available.
12.3 Bioaccumulative potential: no data available.
12.4 Mobility in soil: no data available.
12.5 Results of PBT and vPvB assessment: no data available.
12.6 Other adverse effects: no data available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product:
Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

Uncleaned packaging:
Waste should be disposed of in accordance with federal, state and local environmental control regulations. Must not be composed together with household garbage.

General notes:
Water hazard class 1: slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
14. TRANSPORT INFORMATION

No hazardous material as defined by the transport regulations (ADR/RID, IMDG Code, ICAO TI/IATA DGR).

14.1 UN number: None

14.2 UN proper shipping name: None

14.3 Transport hazard class(es): None

14.4 Packing group: None

14.5 Environmental hazards: None

14.6 Special precautions for user: Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

This Safety Data Sheet is according to:
1907/2006/EC Registration, evaluation and authorization of chemicals regulation (REACH)
1272/2008/EC Classification, labelling and packaging regulation (CLP, globally harmonized system GHS) replaces 67/548/EEC and 1999/45/EC, amending 1907/2006/EC
453/2010/EC Compilation of safety data sheets regulation (SDS), amending 1907/2006/EC

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available.

15.2 Chemical safety assessment
No data available.

16. OTHER INFORMATION

"H code" and "R Phrases" used in this Safety data sheet

<table>
<thead>
<tr>
<th>Reg. 1272/2008</th>
<th>Dir. 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301 /</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H311 /</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H314 /</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315 /</td>
<td>Cause skin irritation.</td>
</tr>
<tr>
<td>H317 /</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319 /</td>
<td>Cause serious eye irritation.</td>
</tr>
<tr>
<td>H331 /</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H335 /</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H400 /</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410 /</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>/ R23/24/25</td>
<td>Toxic by inhalation, in contact with skin and if swallowed.</td>
</tr>
<tr>
<td>/ R34</td>
<td>Causes burns.</td>
</tr>
<tr>
<td>/ R37</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>/ R36/37/38</td>
<td>Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>/ R43</td>
<td>May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td>/ R50/53</td>
<td>Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
</tbody>
</table>
**Trade name:** Estradiol ELISA  
**Article number:** IB79331

"P statements" and "S Phrases" used in this Safety data sheet

<table>
<thead>
<tr>
<th>Reg. 1272/2008</th>
<th>Dir. 67/548/EEC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>S26</td>
<td>In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
</tr>
<tr>
<td>/</td>
<td>S28</td>
<td>After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)</td>
</tr>
<tr>
<td>/</td>
<td>S36/37</td>
<td>Wear suitable protective clothing and gloves.</td>
</tr>
<tr>
<td>/</td>
<td>S39</td>
<td>Wear eye/face protection.</td>
</tr>
<tr>
<td>/</td>
<td>S45</td>
<td>In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible.)</td>
</tr>
<tr>
<td>/</td>
<td>S60</td>
<td>This material and/or its container must be disposed of as hazardous waste</td>
</tr>
<tr>
<td>/</td>
<td>S61</td>
<td>Avoid release to the environment. Refer to special instructions safety data sheet</td>
</tr>
</tbody>
</table>

**Department issuing MSDS:** Product Management

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.