Material Safety Data Sheet

HIV 1 & 2
ELISA

IDENTIFICATION OF THE PREPARATION AND COMPANY NAME.

Product Name: HIV 1 & 2 ELISA
Catalog No: 1516-12
Synonyms: N/A
Intended Use: Laboratory Use

Kit Storage: 2-8°C

KIT COMPONENTS AND CHEMICAL TOXICITY

<table>
<thead>
<tr>
<th>Components of the kit</th>
<th>Format</th>
<th>Hazardous Chemicals</th>
<th>CAS#</th>
<th>Pages</th>
<th>EU R&amp;S-paragraphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICROWELL PLATE</td>
<td>1x96well</td>
<td>none</td>
<td>N/A</td>
<td>5-7</td>
<td>R43, S28-37</td>
</tr>
<tr>
<td>NEGATIVE CONTROL</td>
<td>1x1ml</td>
<td>ProClin™ 300 (0.1%)</td>
<td>N/A</td>
<td>5-7</td>
<td>R43, S28-37</td>
</tr>
<tr>
<td>POSITIVE CONTROL –1</td>
<td>1x1ml</td>
<td>ProClin™ 300 (0.1%)</td>
<td>N/A</td>
<td>5-7</td>
<td>R43, S28-37</td>
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<tr>
<td>POSITIVE CONTROL - 2</td>
<td>1x1ml</td>
<td>ProClin™ 300 (0.1%)</td>
<td>N/A</td>
<td>5-7</td>
<td>R43, S28-37</td>
</tr>
<tr>
<td>HRP-CONJUGATE REAGENT</td>
<td>1x13ml</td>
<td>ProClin™ 300 (0.1%)</td>
<td>N/A</td>
<td>5-7</td>
<td>R43, S28-37</td>
</tr>
<tr>
<td>STOCK WASH BUFFER</td>
<td>1x50ml</td>
<td>Tween 20™ (0.2%)</td>
<td>9005-64-5</td>
<td>8-10</td>
<td>R1, S1</td>
</tr>
<tr>
<td>CHROMOGEN SOLUTION B</td>
<td>1x8ml</td>
<td>TMB solution (0.1%)</td>
<td>54827-17-7</td>
<td>11-13</td>
<td>R20/21/22 , S26-36/33/6/37/38/40</td>
</tr>
<tr>
<td>CHROMOGEN SOLUTION A</td>
<td>1x8ml</td>
<td>Hydrogen peroxide (0.1%)</td>
<td>7722-84-1</td>
<td>11-13</td>
<td>R34 , S3-28-36/39-45</td>
</tr>
<tr>
<td>STOP SOLUTION</td>
<td>1x8ml</td>
<td>Sulfuric Acid</td>
<td>7664-93-9</td>
<td>2-4</td>
<td>R34, S36-37, S39 S24, S25</td>
</tr>
</tbody>
</table>

BIOLOGICAL SAFETY

Antigen: recombinant HIV-1gp41, gp120 and recombinant HIV-2 gp-36
Infectivity: none

Human origin materials:
Positive control: Materials from human origin may have been used in the preparation of the Positive Control of the kit. These materials have been tested and found negative for antibodies to HCV, TP, HIV 1+2 and HBsAg.

Negative control: Materials from human origin may have been used in the preparation of the Negative Control of the kit. These materials have been tested and found negative for antibodies to HCV, HIV ½, TP and HBsAg.

Bovine origin materials: for stabilization of controls and HRP-Conjugate reagent, sera bovine serum albumin (BSA) and fetal calf sera (FCS) are used; these products are derived from animals from geographical areas known to be BSE-free.
SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: Stop solution
Catalog No.: N/A
Application: Stopping solution in DAI anti-HIV 1+2 ELISA
Hazardous component: Sulfuric Acid (H₂SO₄) Water Solution

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution C; 35
Hazardous ingredients:
CAS# 7664-93-9 2 Molar Sulfuric acid

SECTION 3. HAZARD IDENTIFICATION

C Corrosive (not indicated on reagent label)
R34 Cause burns

SECTION 4. FIRST AID MEASURES

- After inhalation: In case of unconsciousness place patient stably in side position for transportation
- After skin contact: Immediately wash with water and soap and rinse thoroughly
- After eye contact: Rinse opened eye for several minutes under running water
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Non-applicable extinguishing media: Undetermined
Special exposure hazards arising from the substance or preparation itself: Undetermined
Special protective equipment for fire fighters: Not required

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away.
Environmental precautions:
- Prevent seepage into sewage system, work pits and cellars. Dilute with plenty of water.
- Do not allow entering sewers/ surface or ground water.
Measures for cleaning:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Use neutralizing agent.
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

SECTION 7. HANDLING AND STORAGE

Handling: Cannot be stored indefinitely
Information for safe handling, fire, and explosion protection: No special measures required
Storage:
Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.
Information about storage in one common storage facility: Store separately from incompatible materials.
Common storage facility: Not special requirements
Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.
Storage class and class according to regulation on flammable liquids: Void

SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Additional information about design of technical facilities:
Ingredients with limit values that require monitoring at the workplace:
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 valid during the making were used as basis
Personal protective equipment S36, S37, S39
General protective and hygienic measures
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work
Avoid contact with the eyes S25 and skin S24
Respiratory protection: Not required
Hand protection: S37 required
Eye protection: S39 required

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Form: liquid
Color: Colorless
Solvent content: Organic solvents 0 %
Flash point: N/A
Odor: Odourless
Oxidizing properties: Vapor pressure: N/A
Explosivity :N/A
Evaporation rate: N/A
Boiling point: N/A
Melting point: N/A
Self-igniting: Not selfigniting.
Danger of explosion: No explosion hazard.
Relative density: N/A
Solubility in Water: Totally miscible
PH : 0.5

SECTION 10. STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose
Conditions to be avoided: Dangerous reactions: No dangerous reactions known
Dangerous decomposition products: No dangerous decomposition products known

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:
Primary irritant effect:
  ➢ On the skin: Caustic effect on skin and mucous membranes.
  ➢ On the eye: Strong caustic effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product shows the following dangers:

**Corrosive** - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity: N/A  
Mobility: N/A  
Persistence and degradability:  
Bioaccumulative potential  
Others: Hazardous for water  
Danger to drinking water if even small quantities leak into the ground. Should not be allowed to reach ground water, water route or sewage system undiluted or unneutralized.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Recommendation Smaller quantities can be disposed of with household waste.  
Uncleaned packaging: N/A  
Recommended cleansing agents: Water, if necessary together with cleansing agents.

**SECTION 14. TRANSPORT INFORMATION**

**Land Transport ADR/RID**  
Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HIV 1+2 ELISA  
Packaging group: II  
Classification: R34  

**Maritime Transport IMDG/GGVSee**  
Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HIV 1+2 ELISA  
Packaging group: II  
Classification: R34  
EmS: 8-06  
Marine pollutant: No

**Air Transport ICAO/IATA**  
Shipping name: Sulfuric Acid Water Solution as Stop solution in DAI HIV 1+2 ELISA  
Packaging group: II  
Classification: R34

**SECTION 15. REGULATIONS**

Code letter and hazard designation of product: N/A  
Risk phrases: R34 Causes burns.  
Safety phrases:  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S60 This material and its container must be disposed of as hazardous waste.  
National regulations:  
Water hazard class: hazardous for water.

**SECTION 16. OTHERS**
This information is based on our present state of knowledge and according to the internationally and domestically available literature. However, this MSDS shall not be used as a warranty for any specific product features. The MSDS is not a legally valid contractual relationship.

**SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION**

<table>
<thead>
<tr>
<th>Component name:</th>
<th>Positive control – I, Positive control – II, Negative control, HRP - Conjugate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog No.: N/A</td>
<td><strong>Application:</strong> Positive control for HIV-1 in DAI anti-HIV 1+2 ELISA</td>
</tr>
<tr>
<td>Catalog No.: N/A</td>
<td><strong>Application:</strong> Positive control for HIV-2 in DAI anti-HIV 1+2 ELISA</td>
</tr>
<tr>
<td>Catalog No.: N/A</td>
<td><strong>Application:</strong> Negative control for HIV 1+2 in DAI anti-HIV 1+2 ELISA</td>
</tr>
<tr>
<td>Catalog No.: N/A</td>
<td><strong>Application:</strong> HRP conjugate of HIV antigen in DAI anti-HIV 1+2 ELISA</td>
</tr>
</tbody>
</table>

Hazardous component: ProClin™ 300

**SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS**

Aqueous solution Xi; 35 0.1%

Hazardous ingredients: CAS# N/A

**SECTION 3. HAZARD IDENTIFICATION**

- Xi Irritant (not indicated on reagent label)
- R43 May cause sensitization by skin contact

**SECTION 4. FIRST AID MEASURES**

- **After inhalation** In case of unconsciousness place patient stably in side position for transportation
- **After skin contact** Immediately wash with water and soap and rinse thoroughly
- **After eye contact** Rinse opened eye for several minutes under running water
- **After swallowing** Drink plenty of water and provide fresh air. Call for a doctor immediately

**SECTION 5. FIRE FIGHTING MEASURES**

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Non-applicable extinguishing media: N/A
- Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Emits toxic fumes under fire conditions
- Special protective equipment for fire fighters. Wear self-contaminated breathing apparatus and protective clothing to prevent contact with skin and eyes

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions: Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  - Prevent seepage into sewage system, work pits and cellars.
  - Dilute with plenty of water.
  - Do not allow entering sewers/surface or ground water.
- Measures for cleaning:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
SECTION 7. HANDLING AND STORAGE

Handling:
Information for safe handling: No special measures required
Information about fire - and explosion protection: No special measures required

Storage:
Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.
Information about storage in one common storage facility: Store separately from incompatible materials.
Common storage facility: Not special requirements
Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.
Storage class and class according to regulation on flammable liquids: Void

SECTION 8. EXPOSURE CONTROL /PERSONAL PROTECTION

Additional information about design of technical facilities:
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
May cause sensitization by skin contact R 43
In case of accident or if you feel unwell, seek medical advice immediately S45
Avoid release to the environment S 61
Additional information: The lists valid during the making were used as basis
Personal protective equipment S36, S37, S39
General protective and hygienic measures
Immediately remove all soiled and contaminated clothing. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice
Wash hands before breaks and at the end of work
Avoid contact with the eyes S25 and skin S24
Respiratory protection: Not required
Hand protection: S37 required
Eye protection: S39 required

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Form: liquid
Color: Colorless
Flash point: 66.11C
Oxidising properties: N/A
Explosivity: N/A
Melting point: -40C
Self-igniting: Not self-igniting.
Relative density: N/A
PH : 4.1
Odour: Odourless
Vapour pressure: >1 G/L
Evaporation rate: <1
Boiling point: 189C
Danger of explosion: No explosion hazard.
Solubility in Water: Fully miscible Z1076
Solvent content: N/A

SECTION 10. STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose
Conditions to be avoided:
Incompatibilities: OXIDIZING AGENTS, REDUCING AGENTS, AMINES, MERCAPTANS
Hazardous combustion or decomposition products: NITROGEN OXIDES, SULFUR OXIDES, HYDROGEN CHLORIDE GAS
Hazardous polymerization: Will not occur

### SECTION 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Primary irritant effect:**
- **On the skin:** Sensitization effect on skin and mucous membranes.
- **On the eye:** Strong caustic effect.

**Additional toxicological information:**
Acute effects – causes burns and sensitization (allergic effects) on the skin. Extremely destructive to the tissue of the mucous membranes and upper respiratory tract, the skin and the eyes. May be harmful if inhaled or swallowed.

INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING. EXPOSURE CAN CAUSE: DERMATITIS

### SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity: N/A
- Mobility: N/A
- Persistence and degradability: N/A
- Bioaccumulative potential: N/A

**Others:** Hazardous for water; Very toxic to aquatic organisms S 50; Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

### SECTION 13. DISPOSAL CONSIDERATIONS

To be disposed only by professional waste disposal service. Dissolve the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### SECTION 14. TRANSPORT INFORMATION

**Land Transport ADR/RID**
Shipping name: ProClin™ 300 as a preservative reagent in DAI HIV 1+2 ELISA
Packaging group: III
Classification: R43

**Maritime Transport IMDG/GGVSee**
Shipping name: ProClin™ 300 as a preservative reagent in DAI HIV 1+2 ELISA
Packaging group: II
Classification: R43
EmS: 8-06
Marine pollutant: Yes

**Air Transport ICAO/IATA**
Shipping name: ProClin™ 300 as a preservative reagent in DAI HIV 1+2 ELISA
Packaging group: II
Classification: R43

### SECTION 15. REGULATIONS

Code letter and hazard designation of product: N/A
Risk phrases: R43 May cause sensitization by skin contact
Safety phrases:
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S60 This material and its container must be disposed of as hazardous waste
S 45 In case of accident or if you feel unwell, seek medical advice immediately
S 61 Avoid release to the environment

National and international regulations:
Water hazard class: hazardous for water.

SECTION 16. OTHERS

This information is based on our present state of knowledge and according to the internationally and domestically available literature. However, this MSDS shall not be used as a warranty for any specific product features. The MSDS is not a legally valid contractual relationship.

SECTION 1. IDENTIFICATION OF SUBSTANCES / PREPARATION

Component name: 20 X Stock Wash Buffer
Catalog No.: N/A
Application: Washing solution in DAI anti-HIV 1+2 ELISA
Hazardous component: Tween 20 (0.2%)
Synonyms: Polyoxyethylene (20) sorbitan monolaurate

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution R1, S1 (As raw material)
Hazardous ingredients:
CAS# 9005-64-5

SECTION 3. HAZARD IDENTIFICATION

- **Inhalation:** May cause mild irritation to respiratory tract.
- **Swallowing:** May cause gastrointestinal irritation.
- **Skin Contact:** Contact may cause irritation.
- **Eye Contact:** May cause irritation.

SECTION 4. FIRST AID MEASURES

- **After inhalation:** N/A
- **After swallowing:** Get medical attention immediately. Never give anything by mouth to an unconscious person. Call for a doctor immediately
- **After skin contact** Immediately wash with water and soap and rinse thoroughly. Get medical attention if irritation develops or persists.
- **After eye contact:** Rinse opened eye for several minutes under running water. Get medical attention immediately.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing agents: N/A
Non-applicable extinguishing media: N/A
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Explosive when dry R1 (As raw material)

Special protective equipment for fire fighters. Wear self-contaminated breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear protective equipment. Keep unprotected persons away.

**Environmental precautions:**
- Prevent seepage into sewage system, work pits and cellars.
- Do not allow entering sewers/surface or ground water.

**Measures for cleaning**
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- Use non-sparking tools.

SECTION 7. HANDLING AND STORAGE

**Handling:**
**Information for safe handling:** Avoid contact with skin and eyes. Wash hands before eating and after handling. Follow good hygienic practices, including no eating, drinking, or smoking in work areas.

**Information about fire - and explosion protection:** No special measures required

**Storage:**
**Requirements to be met by storerooms and receptacles:** Store in cool, well-ventilated location, away from any area where fire hazard may be present.

**Information about storage in one common storage facility:** Store separately from incompatible materials.

**Common storage facility:** Not special requirements

**Further information about storage conditions:** Keep vials tightly closed S1. Protect against physical damage.

**Storage class and class according to regulation on flammable liquids:** Void

SECTION 8. EXPOSURE CONTROL /PERSONAL PROTECTION

**Additional information about design of technical facilities:**

**Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Avoid release to the environment S 61**
**Keep locked up S1**

**Explosive when dry R1 (As raw material)**

**Additional information:** The lists valid during the making were used as basis.

**Personal protective equipment S36, S37, S39**

**General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing. In case of contact with the eyes, rinse immediately with plenty of water. Wash hands before breaks and at the end of work.

**Avoid contact with the eyes S25 and skin S24**

**Respiratory protection:** Not required

**Hand protection:** S37 required

**Eye protection:** S39 required
SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Flash point</td>
<td>N/A</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosivity</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/A</td>
</tr>
<tr>
<td>Self-igniting</td>
<td>Not selfigniting.</td>
</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>PH</td>
<td>N/A</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Vapour pressure</td>
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<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/A</td>
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<tr>
<td>Danger of explosion</td>
<td>Explosive when dry</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Fully miscible</td>
</tr>
<tr>
<td>Solvent content</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose
Conditions to be avoided:
Incompatibilities: N/A
Hazardous combustion or decomposition products: N/A
Hazardous polymerization: Will not occur

SECTION 11. TOXICOLOGICAL INFORMATION

Skin, eye, and mucous membrane irritation, harmful by ingestion, inhalation or skin absorption.
Suspected carcinogen.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: N/A
Mobility: N/A
Persistence and degradability: N/A
Bioaccumulative potential: N/A
Others:
Hazardous for water
Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

SECTION 13. DISPOSAL CONSIDERATIONS

To be disposed only by professional waste disposal service and according to the local regulations.

SECTION 14. TRANSPORT INFORMATION

Land Transport ADR/RID
Shipping name: Tween 20 as detergent reagent in DAI HIV 1+2 ELISA
Packaging group: N/A
Classification: R1 (As raw material)

Maritime Transport IMDG/GGVSee
Shipping name: Tween 20 as detergent reagent in DAI HIV 1+2 ELISA
Packaging group: N/A
Classification: R1 (As raw material)
Marine pollutant: not studied
Air Transport ICAO/IATA
Shipping name: Tween 20 as detergent reagent in DAI HIV 1+2 ELISA
Packaging group: N/A
Classification: R1 (As raw material)

SECTION 15. REGULATIONS

Code letter and hazard designation of product: N/A
Risk phrases: Explosive when dry R1 (As raw material)
Safety phrases:
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S60 This material and its container must be disposed of as hazardous waste
S45 In case of accident or if you feel unwell, seek medical advice immediately
S1 Keep locked up

National and international regulations:
The current regulation:
Water hazard class: Not studied.

SECTION 16. OTHERS

This information is based on our present state of knowledge and according to the internationally and domestically available literature. However, this MSDS shall not be used as a warranty for any specific product features. The MSDS is not a legally valid contractual relationship.

SECTION 1. IDENTIFICATION OF SUBSTANCES /PREPARATION

Component name: Chromogen A and Chromogen B Solutions
Catalog No.: N/A Application: Chromogen A – substrate A reagent for color development in DAI anti-HIV 1+2 ELISA
Catalog No.: N/A Application: Chromogen B – substrate B reagent for color development in DAI anti-HIV 1+2 ELISA
Hazardous component: Substrate A – urea hydrogen peroxide solution
Hazardous component: Substrate B – 3,3',5,5'-tetramethylbenzidine (TMB)

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chromogen B: Aqueous solution; T ; Xn ; (As raw material) Concentration < 0.1% CAS# 54827-17-7
R20/21/22: harmful by inhalation, in contact with skin and if swallowed.
R36/37/38: irritating to eyes, respiratory system and skin. R40: possible risk of irreversible effects. S 26/36/37

Chromogen A: Aqueous solution; C ; O ; (As raw material) Concentration < 0.1% CAS# 7722-84-1
R34 Causes burns; S 3-28-36/39-45

SECTION 3. HAZARD IDENTIFICATION

See section 2

SECTION 4. FIRST AID MEASURES
After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

SECTION 5.    FIRE FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Non-applicable extinguishing media: N/A
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases, etc.: Due to the nature and volume of this product, the type and amount of combustion products are negligible.
Special protective equipment for fire fighters: Not required.

SECTION 6.    ACCIDENTAL RELEASE MEASURES

Personal precautions: Not required
Environmental precautions: No special considerations
Measures for cleaning:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.

SECTION 7.    HANDLING AND STORAGE

Handling:
Information for safe handling: No special measures required
Information about fire - and explosion protection: No special measures required

Storage:
Requirements to be met by storerooms and receptacles: Store in cool, well-ventilated location, away from any area where fire hazard may be present.
Information about storage in one common storage facility: Store separately from incompatible materials.
Common storage facility: Not special requirements
Further information about storage conditions: Keep vials tightly closed. Protect against physical damage.
Storage class and class according to regulation on flammable liquids: Void

SECTION 8.    EXPOSURE CONTROL /PERSONAL PROTECTION

Additional information about design of technical facilities:
Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
In case of accident or if you feel unwell, seek medical advice immediately S45
Additional information: The lists valid during the making were used as basis
Personal protective equipment S36, S37, S39
General protective and hygienic measures
In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes S25 and skin S24.
Respiratory protection: Not required
Hand protection: S37 required.
Eye protection: S39 required
S45 In case of accident or if you feel unwell, seek medical advice immediately

SECTION 9. IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

<table>
<thead>
<tr>
<th>Form:</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Chromogen A-Colorless</td>
</tr>
<tr>
<td>Color:</td>
<td>Chromogen B-Colorless</td>
</tr>
<tr>
<td>Flash point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosivity:</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Self-igniting:</td>
<td>Not self-igniting.</td>
</tr>
<tr>
<td>Relative density:</td>
<td>N/A</td>
</tr>
<tr>
<td>PH:</td>
<td>Chromogen B 11.8</td>
</tr>
<tr>
<td>Odour:</td>
<td>Odourless</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Fully miscible Z1076</td>
</tr>
<tr>
<td>Vapour pressure:</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>N/A</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>No explosion hazard.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Thermal decomposition: If used according to specifications the reagent will not decompose
Conditions to be avoided: Strong oxidizers, Strong acids, Strong bases
Incompatibilities: N/A
Hazardous combustion or decomposition products: N/A
Hazardous polymerization: Will not occur

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:
Primary irritant or sensitization effects:
  ➢ On the skin: no irritation or sensitization effects
  ➢ On the eye: no irritation or sensitization effects
Additional toxicological information:
When used and handled according to specifications, the products will not show any harmful effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: N/A
Mobility: N/A
Persistence and degradability: N/A
Bioaccumulative potential: N/A
Others: Not hazardous for water. Chromogen B -Toxic to fish and other water organisms (As a raw material)

SECTION 13. DISPOSAL CONSIDERATIONS

Can be disposed as normal waste
Clean with water and cleaning reagent

SECTION 14. TRANSPORT INFORMATION
Land Transport ADR/RID
Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HIV 1+2 ELISA

Maritime Transport IMDG/GGVSee
Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HIV 1+2 ELISA
Marine pollutant: No

Air Transport ICAO/IATA
Shipping name: Chromogen A and Chromogen B Solutions as coloring reagents in DAI HIV 1+2 ELISA

SECTION 15. REGULATIONS

Code letter and hazard designation of product: N/A

Chromogen B
R20/21/22: harmful by inhalation, in contact with skin and if swallowed. (As raw material)
R36/37/38: irritating to eyes, respiratory system and skin. R40: possible risk of irreversible effects. (As raw material)
S 26-36/3 (As raw material)

Chromogen A
R34 Causes burns (As raw material)
S 3-28-36/39-45 (As raw material)

National and international regulations:
The current regulation:
Water hazard class: Not hazardous for water

SECTION 16. OTHERS

This information is based on our present state of knowledge and according to the internationally and domestically available literature. However, this MSDS shall not be used as a warranty for any specific product features. The MSDS is not a legally valid contractual relationship.

ISO 13485
ISO 9001

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