

Trade name: Estrone-3-Sulfate equine
Article number: DEV9933

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

1.1 Product identifier

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

Enzyme immunoassay for the laboratory use.

Kit content (name and label reference):

| | |
|----------------------------------|-----------------|
| Microtiterplate | [SORB MT] |
| Calibrator 0-6 | [CAL 0-6] |
| Biotin-Labeled Estrone-3-Sulfate | [BIOTIN CONJ] |
| Enzyme Conjugate | [ENZ CONJ] |
| Sample Buffer | [SAM BUF] |
| Substrate Solution | [SUB TMB] |
| Stop Solution | [STOP SOLN] |
| Wash Solution | [WASH SOLN 10x] |

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Demeditec Diagnostics GmbH
Lise-Meitner Straße 2
D-24145 Kiel

Phone: +49 (0)431-71922-0
Fax: +49 (0)431-7192255
E-mail: info@demeditec.de
<http://www.demeditec.de>

1.4 Emergency telephone number

+49-(0)431 / 71922-0 (during opening time: 8:00 h – 16:30 h)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Adverse physicochemical, human health and environmental effects

Refer to section 9 to 12.

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2.2 Label elements

No labeling required.

Hazard pictogram(s): none
Signal word(s): none
Hazard statement(s): none
Precautionary statement(s): none

2.3 Other hazards

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

None of the components is listed as PBT or vPvB relevant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

| <i>Stop Solution</i> | | | | | | |
|---|---------------------------|---------------------------------|--|-------------------------------------|---|--|
| <i>Ingredients</i> | <i>CAS No [EC No]</i> | <i>Containing Conc. (%)</i> | <i>Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form)</i> | | <i>Pictogram, Signal Word Code(s)</i> | <i>Specific Conc. Limits, M-factors</i> |
| | | | <i>Hazard Class and Category Code(s)</i> | <i>Hazard statement Code(s)</i> | | |
| Hydrochloric acid (HCl) Index-No. 017-002-01-X | 7647-01-0 [231-595-7] | < 10.0 % | Met. Corr. 1 Skin Corr. 1B Eye Dam. 1 STOT SE 3 | H290 H314 H318 H335 | GHS05 GHS07 Dgr | Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 % |

*Dilution is not classified as hazardous according to the European Regulation 1999/45/EC or 1272/2008/EC.

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| Wash Solution | | | | | | |
|---|---------------------------|-----------------------------|--|--|---------------------------------------|---|
| Ingredients | CAS No [EC No] | Containing Conc. (%) | Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form) | | Pictogram, Signal Word Code(s) | Specific Conc. Limits, M-factors |
| | | | Hazard Class and Category Code(s) | Hazard statement Code(s) | | |
| Proclin 300* Index-No. 613-167-00-5 | 96118-96-6 [203-821-4] | < 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 GHS09 Dgr | Skin Corr. 1B; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1; H317: C ≥ 0.0015 % |

* Proclin 300 is a mixture of substances of the components, 5-chloro-2-methyl-2H-isothiazol-3-one (EG-no 247-500-7) and 2-methyl-2H-isothiazol-3-one (EG-no 220-239-6).

**Dilution is not classified as hazardous according to the European Regulation 1999/45/EC and 1272/2008/EC.

| Calibrators, Biotin-Labeled Estrone-3-Sulfate, Enzyme Conjugate, Sample Buffer | | | | | | | |
|---|------------------------|-----------------------------|--|--|---------------------------------------|---|--|
| Ingrediente | CAS No [EC No] | Containing Conc. (%) | Classification according to regulation (EC) No 1272/2008 (CLP) (related to the concentrated form) | | Pictogram, Signal Word Code(s) | Specific Conc. Limits, M-factors | Dir. 67/548/EEC |
| | | | Hazard Class and Category Code(s) | Hazard statement Code(s) | | | |
| Thimerosal Index-No. 080-004-00-7 | 54-64-8 [200-210-4] | < 0.01%* | Acute Tox. 2 * Acute Tox. 1 Acute Tox. 2 * STOT RE 2 * Aquatic Acute 1 Aquatic Chronic 1 | H330 H310 H300 H373 ** H400 H410 | GHS06 GHS08 GHS09 Dgr | * STOT RE 2; H373: C ≥ 0,1 % | T+; R26/27/28: C ≥ 2 % T; R23/24/25: 0,5 % ≤ C < 2 % Xn; R20/21/22: 0,05 % ≤ C < 0,5 % R33: C ≥ 0,05 % |

Note: See section 16 for the detailed text of the above stated H- and P-phrases.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Take off contaminated clothing and shoes. Consult physician in case of complaints.
If inhaled: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
In case of skin contact: Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.
In case of eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. In all cases of doubt, or when symptoms persist, seek medical advice.
If swallowed: If swallowed, rinse mouth with plenty of water. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

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5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products

In case of fire may be liberated: Hydrochloric acid (HCl), may produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

Wear breath protective mask and protective clothes if necessary during fire fighting.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wearing of suitable protective equipment (including personal protective equipment) to prevent any contamination of skin, eyes and personal clothing.

Avoid contact with skin, eyes and clothes. Do not breathe vapor/spray.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Covering of drains. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Place in appropriate containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

Incompatible materials see section 10.

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 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.

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7.2 Conditions for safe storage, including any incompatibilities

Store tightly closed on a cool dry place. Reseal opened bottles carefully and store in an upright position.

Keep only in the original container.

Recommended storage temperature: as indicated in the package inserts

Storage classification: 12 (non flammable liquids)

| | | |
|-----------------|--------------------------------|-------------------------------|
| segregate from: | class1 (explosives) | class 4.1A (flammable solids) |
| | class 4.3 (dangerous when wet) | class 6.2 (infectious) |
| | class 7 (radioactive) | |

Further information:

Store separated from foodstuffs.

Protect from unauthorized access.

7.3 Specific end use(s)

This product is intended for laboratory use by professional users only.

Use only in accordance to the manual.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Stop Solution

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m ³] | STEL [ppm] | STEL [mg/m ³] | Source |
|---------|-------------------|-----------|------------|-----------|--------------------------|------------|---------------------------|------------|
| EU | Hydrochloric acid | 7647-01-0 | IOELV | 5 | 8 | 10 | 15 | 2000/39/EC |
| Germany | Hydrochloric acid | 7647-01-0 | AGW | 2 | 3 | 4 | 6 | TRGS 900 |

Notation

STEL: Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA: Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

| Name of substance | CAS No | End-point | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|-------------------|-----------|-----------|----------------------|------------------------------------|---------|-------------------------|
| Hydrochloric acid | 7647-01-0 | DNEL | 8 mg/m ³ | human, inhalatory | worker | chronic - local effects |
| Hydrochloric acid | 7647-01-0 | DNEL | 15 mg/m ³ | human, inhalatory | worker | acute - local effects |

If the products are used according to the instructions, no air pollution is to be expected.

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

Skin protection: Protective gloves of nitril rubber or nature latex, satisfying the norm EN 374

Eye / face protection: Safety glasses with side shields conforming to EN 166 (EU), NIOSH (US)

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Body protection: Impenetrable protective clothing
Respiratory protection: Respiratory protection necessary at: Aerosol or mist formation. Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, color code: Yellow).
Environmental exposure controls: Keep away from drains. Avoid contamination of water or soil.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| Component | (a) Physical state , (b) color | (c) Odor | (k) pH |
|----------------------------------|----------------------------------|----------------|----------------|
| Calibrators | liquid, colorless | odorless | 7.4 ± 0.05 |
| Enzyme Conjugate | liquid, red | odorless | 7.4 ± 0.05 |
| Microtiterplate | solid, white | odorless | not applicable |
| Substrate Solution | liquid, colorless to pale yellow | characteristic | 3.5 – 4.0 |
| Stop Solution | liquid, colorless | odorless | acidic |
| Wash Buffer Concentrate | liquid, colorless | odorless | not applicable |
| Sample Buffer | liquid, yellow | odorless | 7.4 ± 0.05 |
| Biotin-Labeled Estrone-3-Sulfate | liquid, colorless | odorless | 7.4 ± 0.05 |

For all components

| | |
|---|--|
| (d) Melting point/freezing point | no data available |
| (e) Initial boiling point and boiling range | no data available |
| (f) Flammability | no data available |
| (g) Lower and upper explosion limit | no data available |
| (h) Flash point | no data available |
| (i) Auto-ignition temperature | no data available |
| (j) Decomposition temperature | no data available |
| (l) Kinematic viscosity | no data available |
| (m) Solubility | fully miscible |
| (n) Partition coefficient n-octanol/water (log value) | no data available |
| (o) Vapor pressure | no data available |
| (p) Density and/or relative density | <u>Stop Solution:</u> 1,032g/cm ³ at 20 °C <u>Substrate Solution:</u> 1.011 g/ml |
| (q) Relative vapor density | no data available |
| (r) Particle characteristics | no data available |

9.2 Other informations

Information with regard to physical hazard classes

| | |
|--------------------------|----------------|
| (a) Explosives | not applicable |
| (b) Flammable gases | not applicable |
| (c) Aerosols | not applicable |
| (d) Oxidizing gases | not applicable |
| (e) Gases under pressure | not applicable |

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| | |
|---|---|
| (f) Flammable liquids | no data available |
| (g) Flammable solids | no data available |
| (h) Self-reactive substances and mixtures | no data available |
| (i) Pyrophoric liquids | not applicable |
| (j) Pyrophoric solids | not applicable |
| (k) Self-heating substances and mixtures | not applicable |
| (l) Substances and mixtures, which emit flammable gases in contact with water | not applicable |
| (m) Oxidizing liquids | not applicable |
| (n) Oxidizing solids | not applicable |
| (o) Organic peroxides | not applicable |
| (p) Corrosive to metals | <u>Stop Solution:</u> Hydrochloric acid |
| (q) Desensitized explosives | no data available |

10. STABILITY AND REACTIVITY

10.1 Reactivity: Stop Solution: Substance or mixture corrosive to metals.

10.2 Chemical stability: The materials are stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions: Stop Solution: Release of an acute toxic gas: Metals

10.4 Conditions to avoid

Substrate Solution: Protect from direct UV light, avoid elevated temperatures. Light, heat, moisture (will not cause a dangerous reaction, but destroys the quality of the products)

10.5 Incompatible materials: Stop Solution: different metals.

Substrate Solution: heavy metal salts, complex forming agents and catalases (will not cause a dangerous reaction, but destroys the quality of the products)

10.6 Hazardous decomposition products:

Stop Solution: Dangerous products of combustion (see chapter 5).

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|---------------------------------------|--|
| (a) Acute toxicity | <u>Stop Solution:</u> not to be classified as acutely toxic |
| (b) Skin corrosion/irritation | <u>Stop Solution:</u> not to be classified as skin corrosive/irritant |
| (c) Serious eye damage / irritation | <u>Stop Solution:</u> not to be classified as seriously damaging or irritating to the eyes |
| (d) Respiratory or skin sensitisation | <u>Stop Solution:</u> not to be classified as inhalation or skin allergen |
| (e) Germ cell mutagenicity | <u>Stop Solution:</u> not classified as germ cell mutagenic |
| (f) Carcinogenicity | <u>Stop Solution:</u> not classified as carcinogenic or toxic for reproduction |
| (g) Reproductive toxicity | no data available |

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| | |
|----------------------------|--|
| (h) STOT-single exposure | <u>Substrate Solution:</u> based on availability data, the classification criteria are not met |
| (i) STOT-repeated exposure | <u>Sustrate Solution:</u> based on availability data, the classification criteria are not met |
| (j) Aspiration hazard | <u>Stop Solution:</u> not to be classified as dangerous for aspiration |

11.2 Information on other hazards

Additional information

Hazardous properties cannot be excluded but are unlikely when the products are handled appropriately.

12. ECOLOGICAL INFORMATION

- 12.1 **Toxicity:** According to 1272/2008/EU: It is not classified as water hazardous.
- 12.2 **Persistence and degradability:** 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 **Endocrine disrupting properties:** no data available.
- 12.7 **Other adverse effects:** no data available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product:

This product and its container must be disposed of as hazardous waste. 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:

Do not empty into drains.

14. TRANSPORT INFORMATION

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

- 14.1 **UN number or ID number:** no data available
- 14.2 **UN proper shipping name:** no data available
- 14.3 **Transport hazard class(es):** no data available
- 14.4 **Packing group:** no data available
- 14.5 **Environmental hazards:** no data available
- 14.6 **Special precautions for user:** no data available
- 14.7 **Maritime transport in bulk according to IMO instruments:** no data available

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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

15.2 Chemical safety assessment

No data available.

16. OTHER INFORMATION

H statements used in this Safety data sheet

| Reg. 1272/2008 | |
|----------------|---|
| H290 | May be corrosive to metals |
| H301 | Toxic if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Cause skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage |
| H319 | Cause serious eye irritation. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

GHS Pictograms used in this Safety data sheet

| Reg. 1272/2008 | Pictograms |
|----------------|---|
| GHS05 |  |
| GHS06 |  |
| GHS07 |  |
| GHS09 |  |

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.