

**KIT****1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY****1.1 Product identifier**

Product Name: DHEA ELISA

Catalog #: KAPDB490

Kit Components: Microplate  
Conjugate  
Calibrators  
Controls  
Wash Buffer  
TMB Substrate  
Stopping Solution

**1.2 Intended Use**

For In Vitro Diagnostic Use.

**1.3 Company**

DIAsource ImmunoAssays S.A.  
Rue du Bosquet, 2  
B-1348 Louvain-la-Neuve  
Belgium  
Tel. Nr. +32 (0)10/84.99.11  
E-mail: [products.support@diasource.be](mailto:products.support@diasource.be)

**1.4 Emergency telephone**

DIAsource (only office hours): +32 (0)10/84.99.11  
Centre Anti-Poisons (BE) 070 245 245  
Please refer to your local Anti-Poison Center!

**2 OTHER INFORMATION****2.1 Labeling of microplate:**

Each well can only be used once



**CONJUGATE, CALIBRATORS, CONTROLS, MICROPLATE****1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY****1.1 Product identifier**

Product Name: Conjugate  
Calibrators  
Controls  
Microplate  
Catalog #: Component of the kit mentioned on the first page

**1.2 Intended Use**

To be used as a component with ELISA kits according to the instructions provided with the kit.

**1.3 Company**

DIAsource ImmunoAssays S.A.  
Rue du Bosquet, 2  
B-1348 Louvain-la-Neuve  
Belgium  
Tel. Nr. +32 (0)10/84.99.11  
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**1.4 Emergency telephone**

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Centre Anti-Poisons (BE) 070 245 245  
Please refer to your local Anti-Poison Center!

**2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

This preparation is classified as not dangerous according to CLP (EC) No 1272/2008

**2.2 Label elements**

<b>Danger symbol</b>	Not applicable.
<b>Signal word</b>	Not applicable.
<b>Product Identifier</b>	Not applicable.
<b>Danger</b>	Not applicable.
<b>Supplemental Hazard Information</b>	Not applicable.
<b>Prevention statements</b>	Not applicable.
<b>Response statements</b>	Not applicable.
<b>Storage statements</b>	Not applicable.
<b>Disposal statements</b>	Not applicable.

### 2.3 Other hazards

PBT &amp; vPvB:

PBT: Not applicable

vPvB: Not applicable

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

No substances fulfill the criteria set forth in annex II section A of the REACH regulation (EC) n°1907/2006.

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

<b>General information</b>	In general, in case of doubt or if symptoms persist, always call a doctor. Never give anything by mouth to an unconscious person.
<b>Following inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/attention.
<b>Following skin contact</b>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
<b>Following eye contact</b>	In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn. If eye irritation persists: Get medical advice/attention.
<b>Following ingestion</b>	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.
<b>For emergency responders</b>	No data available.

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

<b>Symptoms</b>	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
<b>Effects</b>	No data available.

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

Treat according to symptoms.

## 5 FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Treat for surrounding material.

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

Products of combustion may include, and are not limited to: oxides of carbon.

**5.3 Advice for fire fighters**

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

**6 ACCIDENTAL RELEASE MEASURES****6.1 Personal precaution, protective equipment and emergency procedures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid any contact with the skin and eyes. Do not breathe vapour or mist.

**6.2 Environmental Precautions**

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**6.3 Methods and material for containment and cleaning-up**

Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Scoop up material and place in a disposal container. Provide ventilation..

**6.4 Reference to other sections**

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

**7 HANDLING AND STORAGE****7.1 Precautions for safe handling**

Users should have a thorough understanding how to use this product. Do not breathe gas/fumes/vapor/spray. Do not get in eyes, on skin, or on clothing. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. (See section 8).

**7.2 Conditions for safe storage, including any incompatibilities**

Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Product should be at room temperature and mixed gently but thoroughly before use. Do not use any component beyond the expiration date printed on the label. Unused chemicals should not be returned to the container. (See section 10).

**7.3 Specific Use(s)**

No data available.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Ingredient	UK - Occupational Exposure Limits (TWA)

Not applicable.

## 8.2 Exposure controls

### Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Eye/face protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.

Hand protection: Wear solvent resistant gloves.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

### Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practice.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	Not available
Odour	Not available
Odor threshold	Not available
pH	Not available
Melting / Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not flammable
Lower limit of flammability or explosive	Not available
Upper limit of flammability or explosive	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Water solubility	Not available
Solubility in other Solvents	Not available
Log Kow	Not available
Auto-inflammability temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidizing properties	Not available
Refractive index	Not available

### 9.2 Other information

No data available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

**10.2 Chemical Stability**

Stable under normal storage conditions.

**10.3 Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

**10.4 Conditions to Avoid**

Heat. Incompatible materials.

**10.5 Incompatible materials**

None known.

**10.6 Hazardous Decomposition Products**

May include, and are not limited to: oxides of carbon.

**11 TOXICOLOGICAL INFORMATION**

<b>Acute toxicity</b>	Unknown toxicity.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
<b>Skin corrosion</b>	May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
<b>Eye damage</b>	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
<b>Respiratory sensitisation</b>	Not available.
<b>Germ cell mutagenicity</b>	This product is not classified as a mutagen.
<b>Carcinogenicity</b>	This product is not classified as a carcinogen.
<b>Toxic for reproduction</b>	This product does not contain known reproductive or developmental toxins
<b>Unique specific toxicity</b>	Not available.
<b>Repeated specific toxicity</b>	Not available.
<b>Aspiration hazard</b>	Not expected to occur.
<b>Other information</b>	Not available.

**12 ECOLOGICAL INFORMATION****12.1 Ecotoxicity**

May cause long-term adverse effects in the aquatic environment.

**12.2 Persistence and degradability**

Not available.

**12.3 Bioaccumulation**

Not available.

**12.4 Mobility in soil**

Not available.

**12.5 Results of PBT and vPvB assessment**

Not available.

**12.6 Other adverse effects**

Not available.

**13 DISPOSAL CONSIDERATIONS**
**13.1 Waste treatment methods**

Do not use the empty containers.

Waste disposal according to the Directives EC 75/442/EEC and 91/689/EEC in their latest versions by incineration or dispose of waste material

**13.2 Waste code numbers/Waste identification**

No data available.

**14 TRANSPORT INFORMATION**

	ADR	ADN/ADNR	IMDG	ICAO
<b>14.1. UN number</b>	Not applicable			
<b>14.2. UN proper shipping name</b>	Not applicable			
<b>14.3. Transport hazard class(es)</b>	Not applicable		Not applicable	Not applicable
<b>14.4. Packing group</b>	Not applicable		Not applicable	Not applicable
<b>14.5. Environmental hazards</b>	Not available	Not available	Not available	Not available
<b>Hazard label</b>	Not applicable			
<b>Classification code</b>	Not applicable			
<b>14.6. Special precautions for user</b>	Not available			
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not available			
<b>Other information</b>	Not available	Not available	Not available	Not available

**15 REGULATORY INFORMATION**
**15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture**
**Authorizations and/or restrictions on use:**

This Safety Data Sheet classification and labeling have been determined according to the (EC) No. 1272-2008 "Classification, Labeling and Packaging" regulation; and take into account the intended product use.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

## 16 OTHER INFORMATION

### Key or legend to abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods by Road/ Regulations concerning the international carriage of dangerous goods by rail.

CAS No.: Chemical Abstract Service Number

CLP: Classification, Labelling and Packaging

### Key literature references and sources for data

No data available.

### Procedure used to derive the classification according to regulation (EC) n°1272/2008 (CLP)

Classification of the mixture is consistent with the method of valuation of regulation (EC) n°1272/2008.

### List of relevant hazard statements and/or precautionary statements. (Full text of any statements which are not written out in full under section 3)

Not applicable.

### Advice on any training appropriate for workers to ensure protection of human health and the environment

No data available

**Disclaimer:** We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

### Notification:

English is acceptable for our MSDS as the following conditions are met:

- Medical specialists (users) are well educated in the English language



## STOPPING SOLUTION

### 1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**1.1 Product identifier**

Product Name: Stopping Solution

Catalog #: Component the kits mentioned on the first page

**1.2 Intended Use**

To be used as a component with ELISA kits according to the instructions provided with the kit.

**1.3 Company**

DIAsource ImmunoAssays S.A.  
 Rue du Bosquet, 2  
 B-1348 Louvain-la-Neuve  
 Belgium  
 Tel. Nr. +32 (0)10/84.99.11  
 E-mail: [products.support@diasource.be](mailto:products.support@diasource.be)

**1.4 Emergency telephone**


DIAsource (only office hours): +32 (0)10/84.99.11  
 Centre Anti-Poisons (BE) 070 245 245  
 Please refer to your local Anti-Poison Center!

### 2 HAZARDS IDENTIFICATION

**2.1 Classification according to the regulation (EC) n°1272/2008 (CLP) and its amendments**

Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.

**2.2 Label elements according to the regulation (EC) n°1272/2008 (CLP) and its amendments**

<b>Danger symbol</b>	
<b>Signal word</b>	Warning
<b>Product Identifier</b>	Sulfuric Acid, 5.32% v/v
<b>Danger</b>	H315 Causes skin irritation. H319 Causes serious eye irritation.
<b>Supplemental Hazard Information</b>	-
<b>Prevention statements</b>	P264 Wash exposed skin thoroughly after handling. P280 Wear protective gloves, protective clothing, eye protection, face protection.

**Response statements** P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage statements** -

**Disposal statements** P501 Dispose of contents/container to comply with local, state and federal regulations.

### 2.3 Other hazards

**PBT & vPvB:** PBT: Not applicable  
 vPvB: Not applicable

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	(% w/w)	Classification	Specific concentration limits
Sulfuric acid ...%* CAS: 7664-93-9 EC: 231-639-5 Index number: 016-020-00-8	< 10%	Skin Corr. 1A, H314	Skin Corr. 1A; H314: $C \geq 15\%$ Eye Irrit. 2; H319: $5\% \leq C < 15\%$ Skin Irrit. 2; H315: $5\% \leq C < 15\%$

**\*Note B:** Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ...%'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

**General information** In general, in case of doubt or if symptoms persist, always call a doctor. Never give anything by mouth to an unconscious person.

**Following inhalation** If person experiences nausea, headache or dizziness, person should stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen by a qualified person, keep the person warm and at rest. Call a physician. In the event that an individual inhales enough vapour to lose consciousness, person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all case, ensure adequate ventilation and provide respiratory protection before the person returns to work.

**Following skin contact** IF ON SKIN (or hair): Remove contaminated clothing. Rinse skin with water / with vegetable oil. Take a shower.

If irritation or rash occurs: Get medical advice.  
**Following eye contact** IF IN EYES: Rinse cautiously with vegetable oil for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.

**Following ingestion** IF SWALLOWED: Rinse thoroughly mouth with water. Immediately call a POISON CENTER/doctor.  
Do NOT induce vomiting.

**For emergency responders** No data available.

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

**Symptoms** No data available.

**Effects** No data available.

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

Treat according to symptoms.

### 5 FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

*Appropriated:* Use water spray or other suitable agent on fires adjacent to non-leaking tanks or intact containers of acid. If only a small amount of combustibles is present, smother fire with dry chemical.

**Small fire:** Dry powder or CO<sub>2</sub>. Move containers from fire area, if it can be done without risk.

**Large fire:** Flood fire area with large quantities of water, while knocking down vapours with water fog. Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

*Non-appropriated:* Do not use solid water streams near ruptured tanks or spills of sulfuric acid.

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

Acid reacts violently with water and can spatter acid onto personnel.

Reacts with most metals, especially when diluted: Hydrogen gas release, which is extremely flammable and explosive. Risk of explosion if acid combines with water, organic materials or base solutions in enclosed spaces. Mixing acids of different strengths/concentrations can also pose an explosive risk in an enclosed space/container.

#### 5.3 Advice for fire fighters

Add chemical safety goggles if eye protection is not provided. Wear full protective clothing. Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear full protective clothing. Neutralize run-off with lime, soda ash, to prevent corrosion of metals and formation of hydrogen gas. Wear self-contained breathing apparatus if fumes or mists are present.

### 6 ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precaution, protective equipment and emergency procedures

Evacuate all personnel from danger area.

Use required personal protective equipment.

Remove sources of ignition.

DO NOT smoke.

Stop flow if possible.

**6.2 Environmental Precautions**

Avoid release to the environment.

Avoid contamination of drains, surface water and groundwater.

**6.3 Methods and material for containment and cleaning-up**

**SMALL SPILL:** Soak up with dry sand, clay or diatomaceous earth.

**LARGE SPILL:** Dike. Cautiously dilute and neutralize with lime or soda ash. Adequate ventilation is required during neutralization due to release of CO<sub>2</sub> gas. Transfer to waste water treatment system. Prevent liquid from entering sewers, waterways. Product not recovered or sent as waste for treatment should be reported to authorities.

**6.4 Reference to other sections**

Refer to sections: 7 safe handling, 8 for personal protective equipments, 13 for disposal.

**7 HANDLING AND STORAGE****7.1 Precautions for safe handling**

DO NOT get in eyes, on skin, or on clothing.

DO NOT ingest: Avoid breathing vapours or mist.

Wear approved respirators if ventilation is not adequate.

No eating, drinking and smoking when handling the product.

Wash hands thoroughly after handling.

**NEVER** add water to acid.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, well-ventilated area, away from incompatible substances. Protect from physical damage.

Keep out of sun and away from heat (more than 275 °C).

If stored in metal containers, vapours can contain explosive hydrogen gas.

Do not smoke in storage area.

**7.3 Specific Use(s)**

No data available.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components with critical values that require monitoring at the workplace:

**Sulfuric acid:**

Limit value (8h): 1 mg/m<sup>3</sup>

Limit value (Short term): 3 mg/m<sup>3</sup>

**8.2 Exposure controls**

**Appropriate engineering controls**

Good general ventilation should be provided to keep vapour and mist concentrations below the exposure limits.

Eye/face protection: Wear safety glasses with non-perforated shields. Add a face shield (close-fitting) if pouring liquid. For leak, spills emergency or heavy handling, use chemical safety goggles or a full face shield. Do not wear contact lenses.

Respiratory protection: Not required when using a closed ventilation system. If acid concentration is above 1 mg/m<sup>3</sup>, wear a gas mask with acid gas canister equipped with particulate filter. If the concentration is higher than 10 mg/m<sup>3</sup>, use an efficiency particulate respirator, or self-contained breathing apparatus with full face piece.

Other: Wear acid resistant gloves (preferably rubber), boots; long sleeve wool, acrylic, or polyester clothing under an acid proof suit. Trouser legs should be outside boots. An apron can be used in place of acid proof suit in laboratory environment, or in handling small volumes of sulphuric acid. In case of emergency, wear a complete acid suit with hood, boots, and gloves with respiratory protection.

**Environmental exposure controls**

Avoid release to the environment

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	Liquid Viscous
<b>Color</b>	Colorless
<b>Odour</b>	Not available
<b>Odor threshold</b>	Not available
<b>pH</b>	<1
<b>Melting / Freezing point</b>	-14°C
<b>Boiling point</b>	308°C
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	<1
<b>Flammability</b>	Not available
<b>Lower limit of flammability or explosive</b>	Not applicable
<b>Upper limit of flammability or explosive</b>	Not applicable
<b>Vapour pressure</b>	<0.001 mmHg @ 20°C
<b>Vapour density</b>	3.4 (air = 1)
<b>Relative density</b>	1.84
<b>Water solubility</b>	Miscible
<b>Solubility in other Solvents</b>	Not available
<b>Log Kow</b>	Not available
<b>Auto-inflammability temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Explosive properties</b>	Not available
<b>Oxidizing properties</b>	Not available
<b>Refractive index</b>	Not available

**9.2 Other information**

No data available.

**10 STABILITY AND REACTIVITY****10.1 Reactivity**

Reacts violently with water, organic substances and base solutions with evolution of heat.

**10.2 Chemical Stability**

Stable.

**10.3 Possibility of hazardous reactions**

Under normal conditions of stock and use, hazardous reactions will not occur.

**10.4 Conditions to Avoid**

Not available.

**10.5 Incompatible materials**

Vigorous reactions with: water, alkaline solutions, metals, carbides, chlorates, fulminates, nitrates, picrates, strong oxidizing, reducing or combustible organic materials. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides and carbides.

**10.6 Hazardous Decomposition Products**

Temperatures of  $\geq 275^\circ$  yield sulphur trioxide gas, which is toxic, corrosive and an oxidizer.

**11 TOXICOLOGICAL INFORMATION****Acute toxicity**

Highly toxic. Erosion of teeth, lesions of the skin, bronchitis, mouth inflammation, conjunctivitis, gastritis.

LD50 (rat-oral) = 2140 mg/kg  
LC50 (mouse-ihl) = 160 mg/m<sup>3</sup> (4hrs)  
LC50 (rat-ihl) = 255 mg/m<sup>3</sup> (4 hrs)

**Inhalation**

Highly toxic by inhalation of fumes or acid mist. Causes irritations or corrosive burns to the upper respiratory system, including nose, mouth, and throat. Lung irritation and pulmonary edema can also occur.

**Ingestion**

Can cause irritation and corrosive burns to mouth, throat, and stomach. Can be fatal if swallowed. Risk of vomiting, diarrhea, oesophagus and stomach perforation.

**Skin corrosion**

Can cause severe burns and destruction of tissue. May cause destruction of the dermis with impairment of the skin at site of contact to regenerate.

**Eye damage**

Extremely corrosive! Liquid contact causes irritation, corneal burns, and conjunctivitis. Blindness may result, or severe or permanent injury. Mist contact may irritate or burn.

**Respiratory sensibilisation**

Not available.

<b>Germ cell mutagenicity</b>	Not identified as a mutagen.
<b>Carcinogenicity</b>	Suspected in humans.
<b>Toxic for reproduction</b>	Not identified as toxic for reproduction.
<b>Unique specific toxicity</b>	Not available.
<b>Repeated specific toxicity</b>	Not available.
<b>Aspiration hazard</b>	Not available.
<b>Other information</b>	Practical experience: none. General notes: The classification was made according to the calculation procedure of the preparation and harmonized classification.

## 12 ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Toxicity to aquatic life increases with lowering of pH.

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulation

Sulfate ion: Ubiquitous in the environment. Metabolized by micro-organisms and plants without bioaccumulation.

### 12.4 Mobility in soil

Easy soil seeping under rain action.

### 12.5 Results of PBT and vPvB assessment

Not available.

### 12.6 Other adverse effects

Due to the product's composition, particular attention must be taken for transportation and storage. Protect from rain because the run-off water will become acidic and may be harmful to flora and fauna.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Do not use the empty containers.

Waste disposal according to the Directives EC 75/442/EEC and 91/689/EEC in their latest versions by incineration or dispose of waste material

### 13.2 Waste code numbers/Waste identification

No data available.

**14 TRANSPORT INFORMATION**

	ADR	ADN/ADNR	IMDG	ICAO
<b>14.1. UN number</b>	Not applicable			
<b>14.2. UN proper shipping name</b>	Not applicable			
<b>14.3. Transport hazard class(es)</b>	Not applicable		Not applicable	Not applicable
<b>14.4. Packing group</b>	Not applicable		Not applicable	Not applicable
<b>14.5. Environmental hazards</b>	Not available	Not available	Not available	Not available
<b>Hazard label</b>	Not applicable			
<b>Classification code</b>	Not applicable			
<b>14.6. Special precautions for user</b>	Not available			
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not available			
<b>Other information</b>	Not available	Not available	Not available	Not available

**15 REGULATORY INFORMATION**
**15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture**
**15.2 Chemical Safety Assessment**

No data available.

**16 OTHER INFORMATION**
**Key or legend to abbreviations and acronyms**

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods by Road/ Regulations concerning the international carriage of dangerous goods by rail.

CAS No.: Chemical Abstract Service Number

CLP: Classification, Labelling and Packaging

**Key literature references and sources for data**

No data available.

**Procedure used to derive the classification according to regulation (EC) n°1272/2008 (CLP)**



Classification of the mixture is consistent with the method of valuation of regulation (EC) n°1272/2008.

**List of relevant hazard statements and/or precautionary statements. (Full text of any statements which are not written out in full under section 3)**

Hazard statements (H):

H314 Causes severe skin burns and eye damage.

**Advice on any training appropriate for workers to ensure protection of human health and the environment**

No data available

The information given in this Safety Data Sheet is based on our present knowledge and on European and national regulations. This Safety Data Sheet describes safety requirements relative to identified uses, it doesn't guarantee all the product properties particularly in the case of non-identified uses. The product mustn't be used for any uses other than those identified under heading 1. Since the user's working conditions are not known by us, it is the responsibility of the user to take all necessary measures to comply with legal requirements for specific uses and avoid negative health effects.

**Notification:**

English is acceptable for our MSDS as the following conditions are met:

- Medical specialists (users) are well educated in the English language

**TMB SUBSTRATE****1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY****1.1 Product identifier**

Product Name: TMB Substrate

Catalog #: Component of the kit mentioned on the first page

**1.2 Intended Use**

To be used as a component with ELISA kits according to the instructions provided with the kit.

For laboratory use only

Industrial use

**1.3 Company**

DIAsource ImmunoAssays S.A.

Rue du Bosquet, 2

B-1348 Louvain-la-Neuve

Belgium

Tel. Nr. +32 (0)10/84.99.11

E-mail: [products.support@diasource.be](mailto:products.support@diasource.be)**1.4 Emergency telephone**

DIAsource (only office hours): +32 (0)10/84.99.11

Centre Anti-Poisons (BE) 070 245 245

Please refer to your local Anti-Poison Center!

**2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified.

**Adverse physicochemical, human health and environmental effects**

No additional information available.

**2.2 Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

<b>Hazard pictogram</b>	Not applicable
<b>Signal word</b>	Not applicable
<b>Hazard statement</b>	Not applicable
<b>Precaution</b>	Not applicable
<b>Prevention</b>	Not applicable
<b>Response</b>	Not applicable
<b>Storage</b>	Not applicable
<b>Disposal</b>	Not applicable
<b>Additional Hazards</b>	Not applicable

### 2.3 Other hazards

**Other hazards not contributing to the classification**

Contains oxidising substance(s) at <0.5%.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to Regulation (EC) No 1272/2008 (CLP)

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Pyrrolidinone	(CAS-No.) 616-45-5 (EC-No.) 210-483-1	1 - 6	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Urea, compound with hydrogen peroxide (H2O2) (1:1)	(CAS-No.) 124-43-6 (EC-No.) 204-701-4	< 0.4	Ox. Sol. 3, H272 Skin Irrit. 2, H315 Eye Dam. 1, H318

Full text of H- phrases: see section 16.

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

**First-aid measures after inhalation**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

**First-aid measures after skin contact**

If skin irritation occurs: Wash skin with mild soap and water. Obtain medical attention if irritation persists.

**First-aid measures after eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**First-aid measures after ingestion**

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

**Symptoms/effects after inhalation**

May cause irritation to the respiratory tract.

**Symptoms/effects after skin contact**

May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

**Symptoms/effects after eye contact**

May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Symptoms/effects after ingestion**

May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## 5 FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Media:**

**Unsuitable Extinguishing Media:** None known.

**Media:**

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

**Fire hazard :** Products of combustion may include, and are not limited to: oxides of carbon. Contains oxidising substance(s) at <0.5%.

### 5.3 Advice for fire fighters

**Protection of Firefighters:** Keep upwind of fire. Wear full firefighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precaution, protective equipment and emergency procedures

**General measures :** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### 6.1.1 For non-emergency personnel

No additional information available.

#### 6.1.2 For emergency responders

No additional information available.

### 6.2 Environmental Precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses.

### 6.3 Methods and material for containment and cleaning-up

**Methods for Containment:** Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

**Methods for Cleaning-Up:** Sweep or shovel spills into appropriate container for disposal. Provide ventilation. Flush contaminated areas with plenty of water.

### 6.4 Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

**7 HANDLING AND STORAGE****7.1 Precautions for safe handling**

- Handling:** Avoid contact with eyes, skin and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Provide adequate ventilation. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
- General Hygiene Advice:** Wash contaminated clothing before reuse. Always wash hands after handling the product.

**7.2 Conditions for safe storage, including any incompatibilities**

- Storage:** Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Store in correctly labelled container. Keep away from food, drink and animal feeding stuffs.

**7.3 Specific Use(s)**

- End uses:** Not available.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

No additional information available.

**8.2 Exposure controls**

- Appropriate engineering controls:** Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
- Hand protection:** Chemical resistant gloves (according to European standard NF EN 374 or equivalent)
- Eye protection:** Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin and body protection:** Wear suitable protective clothing
- Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls:** Avoid release to the environment.
- Other information:** Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	Clear/ light blue
Odour	Characteristic
Odor threshold	No data available
pH	3.1 – 3.5
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not flammable
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

### 9.2 Other information

No additional information available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical Stability

Stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to Avoid

Incompatible materials. Extreme temperatures.

### 10.5 Incompatible materials

Combustible materials. Strong oxidizing agents.

### 10.6 Hazardous Decomposition Products

May include, and are not limited to: oxides of carbon.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity (oral)	Not classified.
Acute toxicity (dermal)	Not classified.
Acute toxicity (inhalation)	Not classified.

2-Pyrrolidinone (616-45-5)	
LD50 oral rat	328 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 80 ppm (Exposure time: 8 h)

<b>Skin corrosion/irritation</b>	Not classified.
<b>Additional information</b>	pH: 3.1 – 3.5
<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met.
<b>Additional information</b>	Not classified.
<b>Respiratory or skin sensitisation</b>	pH: 3.1 – 3.5
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Not classified.
<b>Additional information</b>	Based on available data, the classification criteria are not met.
<b>Other information</b>	Likely routes of exposure: ingestion, inhalation, skin and eye.

## 12 ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

<b>Ecology - general</b>	May cause long-term adverse effects in the aquatic environment.
<b>Unknown hazards to the aquatic environment (CLP)</b>	Contains 0.4 % of components with unknown hazards to the aquatic environment.
<b>Hazardous to the aquatic environment, short-term (acute)</b>	Not classified.
<b>Hazardous to the aquatic environment, long-term (chronic)</b>	Not classified.

2-Pyrrolidinone (616-45-5)	
LC50 fish 1	4600 – 10000 mg/l (Exposure time: 96 h - Species: <i>Brachydanio rerio</i> [static])

EC50 72h algae (1)	250 mg/l (Species: Desmodosmus subspicatus)
EC50 96h algae (1)	84 mg/l (Species: Desmodosmus subspicatus)

**12.2 Persistence and degradability****TMB Substrate**

**Persistence and degradability** Not established.

**12.3 Bioaccumulation****TMB Substrate**

**Bioaccumulative potential** Not established.

**2-Pyrrolidinone (616-45-5)**

**Partition coefficient n-octanol/water** -0.71 (at 25°C)

**12.4 Mobility in soil**

No additional information available.

**12.5 Results of PBT and vPvB assessment**

No additional information available.

**12.6 Other adverse effects**

Additional information : No other effects known.

**13 DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

**Product/Packaging disposal recommendations** Dispose in a safe manner in accordance with local/national regulations. Do not reuse container. Recycle empty containers where allowed.

**14 TRANSPORT INFORMATION****14.1 UN number**

Not regulated.

**14.2 UN proper shipping name**

Proper Shipping Name (ADR) : Not regulated

**14.3 Transport hazard class(es)**

Transport hazard class(es) (ADR) : Not regulated

**14.4 Packing group**

Packing group (ADR) : Not regulated.



**14.5 Environmental hazards**

Dangerous for the environment : No

Other information : No supplementary information available.

**14.6 Special precautions for user**

Special transport precautions : Do not handle until all safety precautions have been read and understood.

Overland transport : Not regulated.

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and IBC Code**

Not applicable.

**15 REGULATORY INFORMATION****15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture****EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no REACH candidate substance.

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

**15.2 Chemical Safety Assessment**

No chemical safety assessment has been carried out.

**16 OTHER INFORMATION****Legend:**

°C – Degrees Celsius

°F – Degrees Fahrenheit

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.

ACGIH – American Conference of Governmental Industrial Hygienists

ATE – Acute Toxicity Estimate

BCF – Bioconcentration Factor

BEI – Biological Exposure Index

CAS – Chemical Abstracts Service

CLP – Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.

cP – centipoise (unit of dynamic viscosity)

cSt – centistokes (unit of kinematic viscosity)

DNEL – Derived No-effect Level

EC50 – Half maximal effective concentration

ECHA – European Chemicals Agency

EC-No. – European Community number

EU – European Union

GHS – Globally Harmonized System of Classification and Labelling of Chemicals

h – Hours

IATA – International Air Transport Association

IDLH – Immediately Dangerous to Life or Health  
IMDG – International Maritime Dangerous Goods  
IOELV – Indicative Occupational Exposure Limit Value  
kPa – kilopascal  
Kow – Octanol-Water Partition Coefficient  
LC50 – Median Lethal Concentration  
LD50 – Median Lethal Dose  
mg/l – Milligram per liter  
mg/kg – Milligram per kilogram  
mg/m<sup>3</sup> – Milligram per cubic meter  
Min – Minutes  
NIOSH – National Institute for Occupational Safety and Health  
NOEC – No Observed Effect Concentration  
N.O.S. – Not Otherwise Specified  
OEL – Occupational Exposure Limit  
PBT - Persistent, Bioaccumulative and Toxic  
ppm – Parts per million  
PVC – Polyvinyl chloride  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail  
SDS – Safety Data Sheet  
STEL – Short Term Exposure Limit  
TLV – Threshold Limit Value  
TWA – Time Weighted Average  
UN – United Nations  
vPvB - Very Persistent and Very Bioaccumulative

**Key literature references and sources for data**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Relevant H- and EUH- Phrases:**

Acute Tox. 4 (Oral) : Acute toxicity (oral), Category 4  
Eye Dam. 1 : Serious eye damage/eye irritation, Category 1  
Eye Irrit. 2 : Serious eye damage/eye irritation, Category 2  
Ox. Sol. 3 : Oxidising Solids, Category 3  
Skin Irrit. 2 : Skin corrosion/irritation, Category 2  
H272 : May intensify fire; oxidiser.  
H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
EUH210 : Safety data sheet available on request.

**Disclaimer:** We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

The information given in this Safety Data Sheet is based on our present knowledge on European and regulations. This Safety Data Sheet describes safety requirements relative to identified uses, it does not guarantee all the product properties particularly in the case of non-identified uses. The product must not be used for any uses other than those identified under heading 1. Since the user's working conditions are not known by us, it is the responsibility of the user to take all necessary measures to comply with legal requirements for specific uses and avoid negative health effects.

**Notification:**

English is acceptable for our MSDS as the following conditions are met:

- Medical specialists (users) are well educated in the English language

## WASH BUFFER

### 1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

#### 1.1 Product identifier

Product Name: Wash Buffer

Catalog #: Component of the kit mentioned on the first page

#### 1.2 Intended Use

To be used as a component with ELISA kits according to the instructions provided with the kit.

#### 1.3 Company

DIAsource ImmunoAssays S.A.

Rue du Bosquet, 2

B-1348 Louvain-la-Neuve

Belgium

Tel. Nr. +32 (0)10/84.99.11

E-mail: [products.support@diasource.be](mailto:products.support@diasource.be)

#### 1.4 Emergency telephone

DIAsource (only office hours): +32 (0)10/84.99.11

Centre Anti-Poisons (BE) 070 245 245

Please refer to your local Anti-Poison Center!

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

The mixture is not classified as dangerous in accordance with the regulation (EC) n°1272/2008.

#### 2.2 Label elements

<b>Danger symbol</b>	None.
<b>Signal word</b>	None.
<b>Product Identifier</b>	None.
<b>Danger</b>	None.
<b>Supplemental Hazard Information</b>	None.
<b>Prevention statements</b>	None.
<b>Response statements</b>	None.
<b>Storage statements</b>	None.
<b>Disposal statements</b>	None.

**2.3 Other hazards****PBT & vPvB:**

PBT: Not applicable

vPvB: Not applicable

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

No substances fulfill the criteria set forth in annex II section A of the REACH regulation (EC) n°1907/2006.

**4 FIRST AID MEASURES****4.1 Description of first aid measures****General information**

In general, in case of doubt or if symptoms persist, always call a doctor. Never give anything by mouth to an unconscious person.

**Following inhalation**

Move victim to fresh air. If not breathing, apply artificial respiration. If breathing difficult, give oxygen. Consult a physician if you feel unwell.

**Following skin contact**

IF ON SKIN (or hair): Immediately remove contaminated clothing. Rinse skin with water / with vegetable oil. Take a shower. If irritation or rash occurs: Get medical advice.

**Following eye contact**

IF IN EYES: Rinse cautiously with vegetable oil for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Following ingestion**

IF SWALLOWED: Rinse thoroughly mouth with water. Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

**For emergency responders** No data available.

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

No data available.

**Effects**

No data available.

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

Treat according to symptoms.

**5 FIRE FIGHTING MEASURES****5.1 Extinguishing media**

*Appropriated:* Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Dry powder, carbone dioxide, water spray or regular foam.

*Inappropriated:* No data available.

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

No data available.

Hazardous combustion products: carbon oxides and nitrogen oxides.

**5.3 Advice for fire fighters**

Wear appropriate apparatus of breathing and protective clothing.

**6 ACCIDENTAL RELEASE MEASURES****6.1 Personal precaution, protective equipment and emergency procedures**

Evacuate all personnel from danger area.

Use required personal protective equipment.

Ensure adequate ventilation, especially in confined areas.

**6.2 Environmental Precautions**

Avoid release to the environment.

Avoid contamination of drains, surface water and groundwater.

**6.3 Methods and material for containment and cleaning-up**

Contain and collect spillage.

Use an absorbent material such as sand, ground, vermiculite, ground diatoms for waste disposal and prevention of penetration in sewers or rivers.

**6.4 Reference to other sections**

Refer to sections: 7 safe handling, 8 for personal protective equipments, 13 for disposal

**7 HANDLING AND STORAGE****7.1 Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**7.3 Specific Use(s)**

No data available.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**8.2 Exposure controls****Appropriate engineering controls**

Showers.

Eyewash stations.

Ventilation systems.

Eye/body protection: Wear protective safety glasses/gloves/clothing is recommended.

Respiratory protection: Generally not necessary in well ventilated areas (unless otherwise stated). Ensure adequate ventilation.

Hygiene measures: Do not drink, eat or smoke near the product. Wash hands before and after handling.

**Environmental exposure controls**      Avoid release to the environment.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	Not available.
<b>Color</b>	Not available.
<b>Odour</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting / Freezing point</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability</b>	Not available.
<b>Lower limit of flammability or explosive</b>	Not available.
<b>Upper limit of flammability or explosive</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Water solubility</b>	Not available.
<b>Solubility in other Solvents</b>	Not available.
<b>Log Kow</b>	Not available.
<b>Auto-inflammability temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidizing properties</b>	Not available.
<b>Refractive index</b>	Not available.

### 9.2 Other information

No data available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical Stability

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

None under normal processing.

**10.4 Conditions to Avoid**

Extremes of temperature and direct sunlight.

**10.5 Incompatible materials**

Strong oxidizing agents. Bases

**10.6 Hazardous Decomposition Products**

Not available.

**11 TOXICOLOGICAL INFORMATION****Acute toxicity****Sodium chloride:**

LD50 (oral, rat) = 3,000 mg/kg

LD50 (dermal, rabbit) > 10,000 mg/kg

LC50 (inhalation, rat) > 42,000 mg/m<sup>3</sup> (1h)

**Tris (hydroxymethyl)aminomethane:**

LD50 (oral, rat) = 5,900 mg/kg

**Skin corrosion**

No data available.

**Eye damage**

No data available.

**Respiratory sensibilisation**

No data available.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

No data available.

**Toxic for reproduction**

No data available.

**Unique specific toxicity**

No data available.

**Repeated specific toxicity**

No data available.

**Aspiration hazard**

No data available.

**Other information**

No data available.

**12 ECOLOGICAL INFORMATION****12.1 Ecotoxicity**

No data available.

**12.2 Persistence and degradability**

No data available.



**12.3 Bioaccumulation**

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**

No data available.

**13.2 Waste code numbers/Waste identification**

No data available.

**14 TRANSPORT INFORMATION**

	ADR	ADN/ADNR	IMDG	ICAO
<b>14.1. UN number</b>	Not applicable			
<b>14.2. UN proper shipping name</b>	Not applicable			
<b>14.3. Transport hazard class(es)</b>	Not applicable		Not applicable	Not applicable
<b>14.4. Packing group</b>	Not applicable		Not applicable	Not applicable
<b>14.5. Environmental hazards</b>	Not available	Not available	Not available	Not available
<b>Hazard label</b>	Not applicable			
<b>Classification code</b>	Not applicable			
<b>14.6. Special precautions for user</b>	Not available			
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not available			
<b>Other information</b>	Not available	Not available	Not available	Not available

**15 REGULATORY INFORMATION****15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture**

No data available.

**15.2 Chemical Safety Assessment**

No data available.

**16 OTHER INFORMATION****Key or legend to abbreviations and acronyms**

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods by Road/ Regulations concerning the international carriage of dangerous goods by rail.

CAS No.: Chemical Abstract Service Number

CLP: Classification, Labelling and Packaging

**Key literature references and sources for data**

No data available.

**Procedure used to derive the classification according to regulation (EC) n°1272/2008 (CLP)**

Classification of the mixture is consistent with the method of valuation of regulation (EC) n°1272/2008.

**List of relevant hazard statements and/or precautionary statements. (Full text of any statements which are not written out in full under section 3)**

Hazard statements (H): None

**Advice on any training appropriate for workers to ensure protection of human health and the environment**

No data available

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**Notification:**

English is acceptable for our MSDS as the following conditions are met:

- Medical specialists (users) are well educated in the English language

**MSDS established** : 2023-03-15

**Revision number** : 5