

**KIT****1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY****1.1 Product identifier**Product Name: Metanephrine Urine ELISA <sup>Fast Track</sup>

Catalog #: KAPL10-0500

Kit Components:	Wash Buffer	Controls
	Enzyme Conjugate	Antiserum
	Substrate	Acylation Concentrate
	Stop Solution	Acylation Diluent
	Microtiterwells	Acylation Buffer
	Standards	Hydrochloric acid

**1.2 Intended Use**

For In Vitro Diagnostic Use. The product is intended for professional 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 microtiterplate:**

Each well can only be used once

**2.2 Non dangerous component**

Not listed components contain no hazardous substance in concentrations to be declared, a labeling is not required.

## STOP SOLUTION

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

#### 1.1 Product identifier

Product Name: Stop Solution

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

#### 1.2 Intended Use

Laboratory reagent / Immunoassay. The product is intended for professional use.

#### 1.3 Company

DIAsource ImmunoAssays S.A.

Rue du Bosquet, 2

B-1348 Louvain-la-Neuve

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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

**REGULATION (EC) No 1272/2008**

Corrosive to metals, Category 1, H290

#### 2.2 Label elements

**REGULATION (EC) No 1272/2008**



**Hazard pictograms:**

**Signal word:** Warning

**Hazard statements:**

H290 May be corrosive to metals.

**Precautionary statements:**

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.

P406 Store in a corrosion resistant container with a resistant inner liner.

**Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008**

Hazard pictograms : -  
 Signal word : -  
 Hazard statements (CLP) : -  
 Precautionary statements (CLP) : -

**2.3 Other hazards**

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/6.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**
**3.1 Substances**

Not applicable

**3.2 Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8	< 5	Met. Corr. 1, H290 Skin Corr. 1A, H314

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
Sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index-No.) 016-020-00-8	(5 ≤ C < 15) Eye Irrit. 2, H319 (5 ≤ C < 15) Skin Irrit. 2, H315 (C ≥ 15) Skin Corr. 1A, H314

For the full text of the H-Statements mentioned in this section, see section 16.

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

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person.  
 Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

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. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

### **5 FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

#### **5.3 Advice for fire fighters**

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

### **6 ACCIDENTAL RELEASE MEASURES**

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

General measures : Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

##### **6.1.1 For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

##### **6.1.2 For emergency responders**

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

#### **6.2 Environmental Precautions**

Prevent entry to sewers and public waters.

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

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

#### **6.4 Reference to other sections**

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

### 7.3 Specific Use(s)

Laboratory reagent, Immunoassays.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Sulphuric acid (7664-93-9)		
EU	Local name	Sulphuric acid (mist)
EU	IOEL TWA	0.05 mg/m <sup>3</sup>
Austria	Local name	Schwefelsäure
Austria	MAK (OEL TWA) (mg/m <sup>3</sup> )	0.1 E mg/m <sup>3</sup>
Austria	MAK (OEL STEL) (mg/m <sup>3</sup> )	0.2 E mg/m <sup>3</sup>
Belgium	Local name	Acide sulfurique (brume) # Zwavelzuur (nevel)
Belgium	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Belgium	Remark	C
Germany	TRGS 900 Local name	Schwefelsäure
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m <sup>3</sup> )	0.1 E mg/m <sup>3</sup>
Germany	TRGS 900 Remark	1(I), DFG, EU, Y
Luxembourg	Local name	Acide sulfurique (brume)
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Switzerland	Local name	Schwefelsäure
Switzerland	MAK (mg/m <sup>3</sup> )	0.1 e mg/m <sup>3</sup>
Switzerland	KZGW (mg/m <sup>3</sup> )	0.2 e mg/m <sup>3</sup>
Switzerland	Notation	C1 <sup>#A</sup> , SSc

### 8.2 Exposure controls

#### **Appropriate engineering controls:**

Provide local exhaust or general room ventilation to minimize vapour concentrations.

#### **Hand protection:**

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**

Wear safety glasses (EN 166).

**Skin and body protection:**

Wear suitable protective clothing.

**Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

**Environmental exposure controls:**

Avoid release to the environment.

**9 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Physical state	: Liquid
Colour	: Colourless
Odour	: No data available
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: No data available
Lower and upper explosion limit	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: < 1.0
Kinematic viscosity	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: No data available
Relative vapour density	: No data available
Particle size	: Not applicable

**9.2 Other information****9.2.1 Information with regard to physical hazard classes**

Explosive properties	: No explosive properties
Oxidising properties	: No oxidising properties

**9.2.2 Other safety characteristics**

No additional information available.

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

No dangerous reactions known under normal conditions of use.

**10.2 Chemical Stability**

Stable under use and storage conditions as recommended in section 7.

**10.3 Possibility of hazardous reactions**

May be corrosive to metals.

**10.4 Conditions to Avoid**

High temperatures.

**10.5 Incompatible materials**

Strong oxidizing agents. Strong bases. Strong acids. Metals.

**10.6 Hazardous Decomposition Products**

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

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

 Acute toxicity : Not classified  
 Based on available data, the classification criteria are not met

<b>Sulphuric acid (7664-93-9)</b>	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat	375 mg/m <sup>3</sup>

 Skin corrosion/irritation : Not classified  
 Based on available data, the classification criteria are not met

 Serious eye damage/irritation : Not classified  
 Based on available data, the classification criteria are not met

 Respiratory or skin sensitization : Not classified  
 Based on available data, the classification criteria are not met

 Germ cell mutagenicity : Not classified  
 Based on available data, the classification criteria are not met

 Carcinogenicity : Not classified  
 Based on available data, the classification criteria are not met

 Reproductive toxicity : Not classified  
 Based on available data, the classification criteria are not met

 Specific target organ toxicity : Not classified  
 (single exposure) Based on available data, the classification criteria are not met

 Specific target organ toxicity : Not classified  
 (repeated exposure) Based on available data, the classification criteria are not met

 Aspiration hazard : Not classified  
 Based on available data, the classification criteria are not met

**11.2 Additional information**

 Potential adverse human health : Based on available data, the classification criteria are not met  
 effects and symptoms

**12 ECOLOGICAL INFORMATION**
**12.1 Toxicity**

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

<b>Sulphuric acid (7664-93-9)</b>	
LC50 fish	> 16 - < 28 mg/l 96 h, <i>Lepomis macrochirus</i>
EC50 crustacea	> 100 mg/l 48 h, <i>Daphnia magna</i>
EC50 algae	> 100 mg/l 72 h, <i>Desmodesmus subspicatus</i>
NOEC chronic fish	0.31 mg/l 213 d, <i>Salvelinus fontinalis</i>
NOEC chronic crustacea	0.15 mg/l, <i>Tanytarsus dissimilis</i>

### 12.2 Persistence and degradability

No additional information available.

### 12.3 Bioaccumulation

No additional information available.

### 12.4 Mobility in soil

No additional information available.

### 12.5 Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

### 12.6 Endocrine disrupting properties

No additional information available.

### 12.7 Other adverse effects

No additional information available

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains. Dispose of this material and its container in a safe way.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

## 14 TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA.

### 14.1 UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable



**14.2 UN proper shipping name**

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

**14.3 Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : Not applicable

**IATA**

Transport hazard class(es) (IATA) : Not applicable

**14.4 Packing group**

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

**14.5 Environmental hazards**

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

**14.6 Special precautions for user****Overland transport**

Not applicable

**Transport by sea**

Not applicable

**Air transport**

Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

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

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

**15.2 Chemical Safety Assessment**

No chemical safety assessment has been carried out

**16 OTHER INFORMATION**

Data sources :                   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.

**Abbreviations and acronyms:**

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

**Full text of H- and EUH-phrases:**

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Notification:

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

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

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

Product Name: Acylation Concentrate

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

**1.2 Intended Use**

laboratory reagent / Immunoassay. The product is intended for professional 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****REGULATION (EC) No 1272/2008**

Skin corrosion, Category 1A, H317

**2.2 Label elements****REGULATION (EC) No 1272/2008****Hazard pictograms:****Signal word:** Warning**Hazard statements:**

H317 May cause an allergic skin reaction.

**Precautionary statements:**

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container to an authorised waste collection point.

**Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008**

Hazard pictograms :

Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Precautionary statements : P261 Avoid breathing mist/vapours/spray.  
P280 Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to an authorised waste collection point.

**2.3 Other hazards**

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties.

**3 COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Substance name : Caproic anhydride  
EC-No. : 218-121-4  
CAS-No. : 2051-49-2

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Caproic anhydride	(CAS-No.) 2051-49-2 (EC-No.) 218-121-4	100	Skin Sens. 1A, H317

Full text of H-statements: see section 16

**3.2 Mixtures**

Not applicable

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

First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person.  
Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

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. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Irritation and corrosion, irritant effects, Cough, Shortness of breath.

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

Treat symptomatically.

### **5 FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

#### **5.3 Advice for fire fighters**

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

### **6 ACCIDENTAL RELEASE MEASURES**

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

General measures : Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

##### **6.1.1 For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

##### **6.1.2 For emergency responders**

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

#### **6.2 Environmental Precautions**

Prevent entry to sewers and public waters.

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

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

#### 6.4 Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

### 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.

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

Storage conditions : Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

#### 7.3 Specific Use(s)

Laboratory reagent, Immunoassays.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

<b>Caproic anhydride (2051-49-2)</b>	
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	88 µg/l
PNEC aqua (marine water)	8.8 µg/l
PNEC aqua (intermittent, freshwater)	888 µg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	7.77 mg/kg dwt
PNEC sediment (marine water)	0.78 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	1.5 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l

#### 8.2 Exposure controls

##### **Appropriate engineering controls:**

Provide local exhaust or general room ventilation to minimize vapour concentrations.

##### **Hand protection:**

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### **Eye protection:**

Wear safety glasses (EN 166).

**Skin and body protection:**

Wear suitable protective clothing.

**Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type A.

**Environmental exposure controls:**

Avoid release to the environment.

**9 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Melting point/freezing point	: -41 °C
Boiling point or initial boiling point and boiling range	: 267 °C
Flammability	: No data available
Lower and upper explosion limit	: No data available
Flash point	: 129 °C
Auto-ignition temperature	: 260 °C (1015 hPa)
Decomposition temperature	: No data available
pH	: No data available
Kinematic viscosity	: No data available
Solubility	: Water: 10.82 g/L (20 °C)
Partition coefficient n-octanol/water (log value)	: No data available
Vapour pressure	: No data available
Density and/or relative density	: 0.924 (15 °C)
Relative vapour density	: 2.9 Pa (25 °C)
Particle size	: Not applicable

**9.2 Other information****9.2.1 Information with regard to physical hazard classes**

Explosive properties	: No explosive properties
Oxidising properties	: No oxidising properties

**9.2.2 Other safety characteristics**

No additional information available.

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

No dangerous reactions known under normal conditions of use.

**10.2 Chemical Stability**

Stable under use and storage conditions as recommended in section 7.

**10.3 Possibility of hazardous reactions**

None under normal use

**10.4 Conditions to Avoid**

High temperatures.

### 10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

### 10.6 Hazardous Decomposition Products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity :	Not classified Based on available data, the classification criteria are not met
Skin corrosion/irritation :	Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation :	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization :	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity :	Not classified Based on available data, the classification criteria are not met
Carcinogenicity :	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity :	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (single exposure)	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (repeated exposure)	Not classified Based on available data, the classification criteria are not met
Aspiration hazard :	Not classified Based on available data, the classification criteria are not met

### 11.2 Additional information

Potential adverse human health : Based on available data, the classification criteria are not met effects and symptoms

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity: Not classified

Caproic anhydride (2051-49-2)	
LC50 fish	88 mg/l 96 h, Pimephales promelas
EC50 crustacea	> 100 mg/l 48 h, Daphnia magna
ECr50 algae	> 100 mg/l 72 h, Desmodesmus subspicatus
NOEC chronic algae	> 100 mg/l 3 h, Activated sludge



**12.2 Persistence and degradability**

<b>Caproic anhydride (2051-49-2)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	77 %, 28 d

**12.3 Bioaccumulative potential**

<b>Caproic anhydride (2051-49-2)</b>	
Partition coefficient n-octanol/water (Log pow)	4.45 (25 °C)

**12.4 Mobility in soil**

No additional information available

**12.5 Results of PBT and vPvB assessment**

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**12.6 Endocrine disrupting properties**

No additional information available

**12.7 Other adverse effects**

No additional information available

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

Regional legislation (waste) :	Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods :	Do not empty into drains. Dispose of this material and its container in a safe way.
Waste code :	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

**14 TRANSPORT INFORMATION**

In accordance with ADR / IMDG / IATA.

**14.1 UN number or ID number**

UN-No. (ADR) :	Not applicable
UN-No. (IMDG) :	Not applicable
UN-No. (IATA) :	Not applicable

**14.2 UN proper shipping name**

Proper Shipping Name (ADR) :	Not applicable
Proper Shipping Name (IMDG) :	Not applicable
Proper Shipping Name (IATA) :	Not applicable

**14.3 Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : Not applicable

**IATA**

Transport hazard class(es) (IATA) : Not applicable

**14.4 Packing group**

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

**14.5 Environmental hazards**

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

**14.6 Special precautions for user****Overland transport**

Not applicable

**Transport by sea**

Not applicable

**Air transport**

Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

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

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

**15.2 Chemical Safety Assessment**

No chemical safety assessment has been carried out

**16 OTHER INFORMATION**

Data sources : 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.

**Abbreviations and acronyms:**

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

**Full text of H- and EUH-phrases:**

Skin Sens. 1A	Skin sensitisation, Category 1A
H317	May cause an allergic skin reaction

**Notification:**

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

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

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

Product Name: Hydrochloric Acid

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

**1.2 Intended Use**

Laboratory reagent / Immunoassay. The product is intended for professional 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****REGULATION (EC) No 1272/2008**

Corrosive to metals, Category 1, H290

**2.2 Label elements****REGULATION (EC) No 1272/2008****Hazard pictograms:****Signal word:** Warning**Hazard statements:**

H290 May be corrosive to metals.

**Precautionary statements:**

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.

P406 Store in a corrosion resistant container with a resistant inner liner.

**Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008**

Hazard pictograms	: -
Signal word	: -
Hazard statements (CLP)	: -
Precautionary statements (CLP)	: -

**2.3 Other hazards**

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/6.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**
**3.1 Substances**

Not applicable

**3.2 Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	0,1 - 1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	(10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C ≤ 100) STOT SE 3, H335 (25 ≤ C ≤ 100) Skin Corr. 1B, H314

For the full text of the H-Statements mentioned in this section, see section 16.

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

First-aid measures general :	Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.
First-aid measures after inhalation :	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact :	Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.
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.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

### **5 FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

#### **5.3 Advice for fire fighters**

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

### **6 ACCIDENTAL RELEASE MEASURES**

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

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

##### **6.1.1 For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

##### **6.1.2 For emergency responders**

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

#### **6.2 Environmental Precautions**

Prevent entry to sewers and public waters.

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

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

#### 6.4 Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

### 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

#### 7.3 Specific Use(s)

Laboratory reagent, Immunoassays.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Hydrochloric acid ... % (EC 231-595-7)		
EU	Local name	Hydrogen chloride
EU	IOELV TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	2 ppm
Germany	TRGS 900 Remark	2(I), DFG, EU, Y
Luxembourg	Local name	Chlorure d'hydrogène

Luxembourg	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

## 8.2 Exposure controls

### Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

### Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### Eye protection:

Wear safety glasses (EN 166).

### Skin and body protection:

Wear suitable protective clothing.

### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

### Environmental exposure controls:

Avoid release to the environment.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: No data available



Lower and upper explosion limit	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: No data available
Kinematic viscosity	: No data available
Solubility	: Water: completely miscible
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: No data available
Relative vapour density	: No data available
Particle size	: Not applicable

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

Explosive properties	: No explosive properties
Oxidising properties	: No oxidising properties

### 9.2.2 Other safety characteristics

No additional information available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2 Chemical Stability

Stable under use and storage conditions as recommended in section 7.

### 10.3 Possibility of hazardous reactions

May be corrosive to metals.

### 10.4 Conditions to Avoid

High temperatures.

### 10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

### 10.6 Hazardous Decomposition Products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

## 11 TOXICOLOGICAL INFORMATION

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

Acute toxicity : Not classified  
Based on available data, the classification criteria are not met

Hydrochloric acid ... % (EC 231-595-7)	
LC50 inhalation rat	7051 mg/m <sup>3</sup> 30 min

Skin corrosion/irritation :	Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation :	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization :	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity :	Not classified Based on available data, the classification criteria are not met
Carcinogenicity :	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity :	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (single exposure)	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (repeated exposure)	Not classified Based on available data, the classification criteria are not met
Aspiration hazard :	Not classified Based on available data, the classification criteria are not met

### 11.2 Additional information

Potential adverse human health : Based on available data, the classification criteria are not met effects and symptoms

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
LC50 Fish	pH 3.25 – 3.5 96 h, Lepomis macrochirus
EC50 Crustacea	pH 4.92 48 h, Daphnia magna
EC50 Algae	pH 4.7 72 h, Chlorella vulgaris

### 12.2 Persistence and degradability

No additional information available.

### 12.3 Bioaccumulation

No additional information available.

### 12.4 Mobility in soil

No additional information available.

### 12.5 Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

### 12.6 Endocrine disrupting properties

No additional information available.

**12.7 Other adverse effects**

No additional information available

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

Regional legislation (waste) :	Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods :	Do not empty into drains. Dispose of this material and its container in a safe way.
Waste code :	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

**14 TRANSPORT INFORMATION**

In accordance with ADR / IMDG / IATA.

**14.1 UN number or ID number**

UN-No. (ADR) :	Not applicable
UN-No. (IMDG) :	Not applicable
UN-No. (IATA) :	Not applicable

**14.2 UN proper shipping name**

Proper Shipping Name (ADR) :	Not applicable
Proper Shipping Name (IMDG) :	Not applicable
Proper Shipping Name (IATA) :	Not applicable

**14.3 Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : Not applicable

**IATA**

Transport hazard class(es) (IATA) : Not applicable

**14.4 Packing group**

Packing group (ADR) :	Not applicable
Packing group (IMDG) :	Not applicable
Packing group (IATA) :	Not applicable

**14.5 Environmental hazards**

Dangerous for the environment :	No
Marine pollutant :	No

Other information : No supplementary information available

#### 14.6 Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable

### 15 REGULATORY INFORMATION

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

##### EU regulations

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

### 16 OTHER INFORMATION

Data sources : 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.

#### Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Notification:

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

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

## STANDARDS

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

#### 1.1 Product identifier

Product Name: Standards

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

#### 1.2 Intended Use

Laboratory reagent / Immunoassay. The product is intended for professional 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

**REGULATION (EC) No 1272/2008**

Corrosive to metals, Category 1, H290

#### 2.2 Label elements

**REGULATION (EC) No 1272/2008**



**Hazard pictograms:**

**Signal word:** Warning

**Hazard statements:**

H290 May be corrosive to metals.

**Precautionary statements:**

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.

P406 Store in a corrosion resistant container with a resistant inner liner.

**Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008**

Hazard pictograms	: -
Signal word	: -
Hazard statements (CLP)	: -
Precautionary statements (CLP)	: -

**2.3 Other hazards**

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/6.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**
**3.1 Substances**

Not applicable

**3.2 Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	< 1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	(10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C ≤ 100) STOT SE 3, H335 (25 ≤ C ≤ 100) Skin Corr. 1B, H314

For the full text of the H-Statements mentioned in this section, see section 16.

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

First-aid measures general :	Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.
First-aid measures after inhalation :	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact :	Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.
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.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

### **5 FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

#### **5.3 Advice for fire fighters**

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

### **6 ACCIDENTAL RELEASE MEASURES**

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

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

##### **6.1.1 For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

##### **6.1.2 For emergency responders**

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

#### **6.2 Environmental Precautions**

Prevent entry to sewers and public waters.

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

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.



#### 6.4 Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

### 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

#### 7.3 Specific Use(s)

Laboratory reagent, Immunoassays.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Hydrochloric acid ... % (EC 231-595-7)		
EU	Local name	Hydrogen chloride
EU	IOELV TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	2 ppm
Germany	TRGS 900 Remark	2(I), DFG, EU, Y
Luxembourg	Local name	Chlorure d'hydrogène

Luxembourg	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

## 8.2 Exposure controls

### Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

### Hand protection:

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### Eye protection:

Wear safety glasses (EN 166).

### Skin and body protection:

Wear suitable protective clothing.

### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

### Environmental exposure controls:

Avoid release to the environment.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: No data available

Lower and upper explosion limit	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: No data available
Kinematic viscosity	: No data available
Solubility	: Water: completely miscible
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: No data available
Relative vapour density	: No data available
Particle size	: Not applicable

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

Explosive properties	: No explosive properties
Oxidising properties	: No oxidising properties

### 9.2.2 Other safety characteristics

No additional information available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2 Chemical Stability

Stable under use and storage conditions as recommended in section 7.

### 10.3 Possibility of hazardous reactions

May be corrosive to metals.

### 10.4 Conditions to Avoid

High temperatures.

### 10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

### 10.6 Hazardous Decomposition Products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

## 11 TOXICOLOGICAL INFORMATION

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

Acute toxicity : Not classified  
Based on available data, the classification criteria are not met

Hydrochloric acid ... % (EC 231-595-7)	
LC50 inhalation rat	7051 mg/m <sup>3</sup> 30 min

Skin corrosion/irritation :	Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation :	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization :	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity :	Not classified Based on available data, the classification criteria are not met
Carcinogenicity :	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity :	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (single exposure)	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (repeated exposure)	Not classified Based on available data, the classification criteria are not met
Aspiration hazard :	Not classified Based on available data, the classification criteria are not met

### 11.2 Additional information

Potential adverse human health : Based on available data, the classification criteria are not met effects and symptoms

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
LC50 Fish	pH 3.25 – 3.5 96 h, Lepomis macrochirus
EC50 Crustacea	pH 4.92 48 h, Daphnia magna
EC50 Algae	pH 4.7 72 h, Chlorella vulgaris

### 12.2 Persistence and degradability

No additional information available.

### 12.3 Bioaccumulation

No additional information available.

### 12.4 Mobility in soil

No additional information available.

### 12.5 Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

### 12.6 Endocrine disrupting properties

No additional information available.

**12.7 Other adverse effects**

No additional information available

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

Regional legislation (waste) :	Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods :	Do not empty into drains. Dispose of this material and its container in a safe way.
Waste code :	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

**14 TRANSPORT INFORMATION**

In accordance with ADR / IMDG / IATA.

**14.1 UN number or ID number**

UN-No. (ADR) :	Not applicable
UN-No. (IMDG) :	Not applicable
UN-No. (IATA) :	Not applicable

**14.2 UN proper shipping name**

Proper Shipping Name (ADR) :	Not applicable
Proper Shipping Name (IMDG) :	Not applicable
Proper Shipping Name (IATA) :	Not applicable

**14.3 Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : Not applicable

**IATA**

Transport hazard class(es) (IATA) : Not applicable

**14.4 Packing group**

Packing group (ADR) :	Not applicable
Packing group (IMDG) :	Not applicable
Packing group (IATA) :	Not applicable

**14.5 Environmental hazards**

Dangerous for the environment :	No
Marine pollutant :	No

Other information : No supplementary information available

#### 14.6 Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable

### 15 REGULATORY INFORMATION

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

##### EU regulations

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

### 16 OTHER INFORMATION

Data sources : 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.

#### Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Notification:

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

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

## CONTROLS

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

#### 1.1 Product identifier

Product Name: Controls

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

#### 1.2 Intended Use

Laboratory reagent / Immunoassay. The product is intended for professional 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

**REGULATION (EC) No 1272/2008**

Corrosive to metals, Category 1, H290

#### 2.2 Label elements

**REGULATION (EC) No 1272/2008**



**Hazard pictograms:**

**Signal word:** Warning

**Hazard statements:**

H290 May be corrosive to metals.

**Precautionary statements:**

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.

P406 Store in a corrosion resistant container with a resistant inner liner.



**Reduced labelling (contents of the package ≤ 125 ml) according to Regulation (EC) No. 1272/2008**

Hazard pictograms	: -
Signal word	: -
Hazard statements (CLP)	: -
Precautionary statements (CLP)	: -

**2.3 Other hazards**

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/6.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**
**3.1 Substances**

Not applicable

**3.2 Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	< 1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]
hydrochloric acid ... %	(EC-No) 231-595-7 (EC Index-No) 017-002-01-X	(10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C ≤ 100) STOT SE 3, H335 (25 ≤ C ≤ 100) Skin Corr. 1B, H314

For the full text of the H-Statements mentioned in this section, see section 16.

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

First-aid measures general :	Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.
First-aid measures after inhalation :	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact :	Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.
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.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Drink plenty of water as a precaution.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

### **5 FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Foam. Dry extinguishing powder. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

#### **5.3 Advice for fire fighters**

Firefighting instructions : Prevent firefighting water from entering the environment. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

### **6 ACCIDENTAL RELEASE MEASURES**

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

General measures : Stop leak if safe to do so. Ensure adequate air ventilation. Avoid contact with skin and eyes. Do not breathe vapours/spray.

##### **6.1.1 For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

##### **6.1.2 For emergency responders**

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

#### **6.2 Environmental Precautions**

Prevent entry to sewers and public waters.

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

Methods for cleaning up : Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose of in accordance with relevant local regulations.

#### 6.4 Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

### 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from direct sunlight. Keep out of frost.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

Incompatible materials : Metals.

#### 7.3 Specific Use(s)

Laboratory reagent, Immunoassays.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Hydrochloric acid ... % (EC 231-595-7)		
EU	Local name	Hydrogen chloride
EU	IOELV TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	2 ppm
Germany	TRGS 900 Remark	2(I), DFG, EU, Y
Luxembourg	Local name	Chlorure d'hydrogène

Luxembourg	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

<b>Hydrochloric acid ... % (EC 231-595-7)</b>	
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

## 8.2 Exposure controls

### **Appropriate engineering controls:**

Provide local exhaust or general room ventilation to minimize vapour concentrations.

### **Hand protection:**

Wear suitable gloves (EN 374). Nitrile rubber, 0.35 mm. Butyl rubber, 0.5 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### **Eye protection:**

Wear safety glasses (EN 166).

### **Skin and body protection:**

Wear suitable protective clothing.

### **Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type P2.

### **Environmental exposure controls:**

Avoid release to the environment.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: No data available

Lower and upper explosion limit	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: No data available
Kinematic viscosity	: No data available
Solubility	: Water: completely miscible
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: No data available
Relative vapour density	: No data available
Particle size	: Not applicable

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

Explosive properties	: No explosive properties
Oxidising properties	: No oxidising properties

### 9.2.2 Other safety characteristics

No additional information available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2 Chemical Stability

Stable under use and storage conditions as recommended in section 7.

### 10.3 Possibility of hazardous reactions

May be corrosive to metals.

### 10.4 Conditions to Avoid

High temperatures.

### 10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

### 10.6 Hazardous Decomposition Products

No hazardous decomposition products known at room temperature. In case of fire: Toxic gases may be formed. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Chlorine.

## 11 TOXICOLOGICAL INFORMATION

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

Acute toxicity : Not classified  
Based on available data, the classification criteria are not met

Hydrochloric acid ... % (EC 231-595-7)	
LC50 inhalation rat	7051 mg/m <sup>3</sup> 30 min

Skin corrosion/irritation :	Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation :	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization :	Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity :	Not classified Based on available data, the classification criteria are not met
Carcinogenicity :	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity :	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (single exposure)	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity : (repeated exposure)	Not classified Based on available data, the classification criteria are not met
Aspiration hazard :	Not classified Based on available data, the classification criteria are not met

### 11.2 Additional information

Potential adverse human health : Based on available data, the classification criteria are not met effects and symptoms

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Hydrochloric acid ... % (EC 231-595-7)	
LC50 Fish	pH 3.25 – 3.5 96 h, Lepomis macrochirus
EC50 Crustacea	pH 4.92 48 h, Daphnia magna
EC50 Algae	pH 4.7 72 h, Chlorella vulgaris

### 12.2 Persistence and degradability

No additional information available.

### 12.3 Bioaccumulation

No additional information available.

### 12.4 Mobility in soil

No additional information available.

### 12.5 Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

### 12.6 Endocrine disrupting properties

No additional information available.

**12.7 Other adverse effects**

No additional information available

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

Regional legislation (waste) :	Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods :	Do not empty into drains. Dispose of this material and its container in a safe way.
Waste code :	The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

**14 TRANSPORT INFORMATION**

In accordance with ADR / IMDG / IATA.

**14.1 UN number or ID number**

UN-No. (ADR) :	Not applicable
UN-No. (IMDG) :	Not applicable
UN-No. (IATA) :	Not applicable

**14.2 UN proper shipping name**

Proper Shipping Name (ADR) :	Not applicable
Proper Shipping Name (IMDG) :	Not applicable
Proper Shipping Name (IATA) :	Not applicable

**14.3 Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : Not applicable

**IATA**

Transport hazard class(es) (IATA) : Not applicable

**14.4 Packing group**

Packing group (ADR) :	Not applicable
Packing group (IMDG) :	Not applicable
Packing group (IATA) :	Not applicable

**14.5 Environmental hazards**

Dangerous for the environment :	No
Marine pollutant :	No

Other information : No supplementary information available

#### 14.6 Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable

### 15 REGULATORY INFORMATION

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

##### EU regulations

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

### 16 OTHER INFORMATION

Data sources : 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.

#### Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals



SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

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** : 2024-03-14**Revision number** : 7