KIT

1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identifier

Product Name:	5-HIAA ELISA	
Catalog #:	KAPL10-1900	
Kit Components:	Adhesive foil	Antiserum
	Reaction plate	Standards
	Wash Buffer	Controls
	Enzyme Conjugate	Diluent
	Substrate	Assay Buffer
	Stop Solution	Methylation Buffer
	Microtiterwells	Methylation Reagent

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

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.

DILUENT

1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identifier

Product Name: Diluent

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

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 [CLP]

Hazard pictograms (CLP) : -

Signal word (CLP) : -

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

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. 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. 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 : 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/m³)	8 mg/m³
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m³)	15 mg/m³
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m³)	8 mg/m³
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m³)	15 mg/m³
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m³)	8 mg/m³
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m³)	15 mg/m³
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid

Germany	TRGS 900 Occupational Exposure Limit Value (mg/m^3)	3 mg/m^3
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^3)	8 mg/m^3
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m^3)	15 mg/m^3
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m^3)	3 mg/m^3
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m^3)	6 mg/m^3
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

Hydrochloric acid … % (EC 231-595-7)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	15 mg/m^3
Long-term - local effects, inhalation	8 mg/m^3
DNEL/DMEL (General population)	
Acute - local effects, inhalation	15 mg/m^3
Long-term - local effects, inhalation	8 mg/m^3

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 - 1.3
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

Hydrochloric acid … % (EC 231-595-7)

LC50 inhalation rat	7051 mg/m³ 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 effects and symptoms : Based on available data, the classification criteria are not met

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

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
Belgium
Tel. Nr. +32 (0)10/84.99.11
E-mail: 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 [CLP]

Hazard pictograms (CLP) : -

Signal word (CLP) : -

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/m³
Austria	Local name	Schwefelsäure
Austria	MAK (OEL TWA) (mg/m³)	0.1 E mg/m³
Austria	MAK (OEL STEL) (mg/m³)	0.2 E mg/m³
Belgium	Local name	Acide sulfurique (brume) # Zwavelzuur (nevel)
Belgium	OEL TWA (mg/m³)	0.2 mg/m³
Belgium	Remark	C
Germany	TRGS 900 Local name	Schwefelsäure
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	0.1 E mg/m³
Germany	TRGS 900 Remark	1(I), DFG, EU, Y
Luxembourg	Local name	Acide sulfurique (brume)
Luxembourg	OEL STEL (mg/m³)	0.05 mg/m³
Switzerland	Local name	Schwefelsäure
Switzerland	MAK (mg/m³)	0.1 e mg/m³
Switzerland	KZGW (mg/m³)	0.2 e mg/m³
Switzerland	Notation	$C1^{\#}_{A}$, 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

Sulphuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat	375 mg/m³

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 effects and symptoms : Based on available data, the classification criteria are not met

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

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

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

METHYLATION BUFFER

1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identifier

Product Name: Methylation Buffer

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

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
Flammable liquid, Category 2, H225
Acute toxicity (oral), Category 3, H301
Acute toxicity (dermal), Category 3, H311
Acute toxicity, Category 3, Inhalation, H331
Specific target organ toxicity-single exposure, Category 1, Eyes, H370

2.2 Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms: 

Signal word: Danger

Hazardous ingredients: Methanol

Hazard statements:

H225	Highly flammable liquid and vapour.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs (eyes).

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/ gas/mist/vapours/spray.
P280	Wear protective gloves/ protective clothing.
P308+P311	IF exposed or concerned: Call a POISON CENTER, doctor.
P403+P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P501	Dispose of contents/container to national regulations.

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

Hazard pictograms: 

Signal word: Danger

Hazardous ingredients: Methanol

Hazard statements:

H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs (eyes).

Precautionary statements:

P260	Do not breathe dust/fume/ gas/mist/vapours/spray.
P280	Wear protective gloves/ protective clothing.
P308+P311	IF exposed or concerned: Call a POISON CENTER, doctor.
P403+P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P501	Dispose of contents/container to national regulations.

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) 2018/605.

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]
Dimethyl sulfoxide	(CAS no) 67-68-5 (EC no) 200-664-3	40 - 60	Not classified
Methanol	(CAS no) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	20 - 50	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT SE 1, H370

Name	Product identifier	Specific concentration limits according to Regulation (EC) No. 1272/2008 [CLP]

Methanol	(CAS no) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	(3 ≤ C < 10) STOT SE 2, H371 (10 ≤ C ≤ 100) STOT SE 1, H370

Full text of H-statements: see section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

First-aid measures general: IF exposed or concerned: Call a POISON CENTER or doctor. 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. Make the affected person rest and keep at warm. If breathing stops, give artificial respiration.

First-aid measures after skin contact: Take off immediately all contaminated clothing. IF ON SKIN: Wash with plenty of soap and water. Get medical advice/attention if you feel unwell.

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: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Do NOT induce vomiting. Drink water as a precaution.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects general: Causes damage to organs (eye, central nervous system).

Symptoms/effects after inhalation: Toxic if inhaled. Possible symptoms: cough, dizziness, headache.

Symptoms/effects after skin contact: Toxic in contact with skin.

Symptoms/effects after ingestion: Toxic if swallowed. Possible symptoms: Abdominal pain, malaise, vomiting. Poisoning effects on central nervous system may cause cramps, difficulty in breathing and unconsciousness. Risk of blindness.

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: Carbon dioxide. Dry extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam.

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

5.2 Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

Explosion hazard: May form flammable/explosive vapour-air mixture.

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

5.3 Advice for firefighters

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 precautions, protective equipment and emergency procedures

General measures: Stop leak if safe to do so. Provide adequate ventilation. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. 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: Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Clean preferably with a detergent - Avoid the use of solvents. 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

Additional hazards when processed: Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling: Provide good ventilation in process area to prevent formation of vapour. Remove all sources of ignition. No open flames. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions: Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Keep in fireproof place. Protect from direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store locked up.

Prohibitions on mixed storage: Keep away from food, drink and animal feedingstuffs. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

7.3 Specific end use(s)

Laboratory reagent, Immunoassays.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Dimethyl sulfoxide (67-68-5)		
Austria	Local name	Dimethylsulfoxid
Austria	MAK (OEL TWA) (mg/m³)	160 mg/m³
Austria	MAK (OEL TWA) (ppm)	50 ppm
Austria	Remark (AT)	H
Germany	TRGS 900 Local name	Dimethylsulfoxid (DMSO)
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	160 mg/m³
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	50 ppm
Germany	TRGS 900 Remark	2(I), DFG, Z, H
Switzerland	Local name	Diméthylsulfoxyde (DMSO) / Dimethylsulfoxid (DMSO)
Switzerland	MAK (mg/m³)	160 mg/m³
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m³)	320 mg/m³
Switzerland	KZGW (ppm	100 ppm
Switzerland	Notation (CH)	H

Methanol (67-56-1)		
EU	Local name	Methanol
EU	IOELV TWA (mg/m³)	260 mg/m³
EU	IOELV TWA (ppm)	200 ppm
EU	Annotation	Skin
Austria	Local name	Methanol
Austria	MAK (OEL TWA) (mg/m³)	295 mg/m³
Austria	MAK (OEL TWA) (ppm)	100 ppm

Austria	MAK (OEL STEL) (mg/m³)	590 mg/m³
Austria	MAK (OEL STEL) (ppm)	200 ppm
Austria	Remark (AT)	H
Belgium	Local name	Alcool méthylique # Methanol
Belgium	OEL TWA (mg/m³)	266 mg/m³
Belgium	OEL TWA (ppm)	200 ppm
Belgium	OEL STEL (mg/m³)	333 mg/m³
Belgium	OEL STEL (ppm)	250 ppm
Belgium	Remark (BE)	D
Germany	TRGS 900 Local name	Methanol
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	130 mg/m³
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	100 ppm
Germany	TRGS 900 Remark	2(II), DFG,EU,H,Y
Germany	TRGS 903 (BGW)	15 mg/l U, b, c parameter: Methanol
Luxembourg	Local name	Méthanol
Luxembourg	OEL TWA (mg/m³)	260 mg/m³
Luxembourg	OEL TWA (ppm)	200 ppm
Luxembourg	Mention	Peau
Switzerland	Local name	Méthanol / Methanol [Methylalkohol]
Switzerland	MAK (mg/m³)	260 mg/m³
Switzerland	MAK (ppm)	200 ppm
Switzerland	KZGW (mg/m³)	520 mg/m³
Switzerland	KZGW (ppm	400 ppm
Switzerland	Notation (CH)	H, B, SSc
Switzerland	BAT Values	30 mg/l, U, b, c parameter: Methanol

Dimethyl sulfoxide (67-68-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	365 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	75 mg/m³
Long-term - local effects, inhalation	17.67 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.67 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	56 mg/m³
Long-term - systemic effects, dermal	178 mg/kg bodyweight/day
Dimethyl sulfoxide (67-68-5)	
Long-term - local effects, inhalation	3.13 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	17 mg/l
PNEC aqua (marine water)	1.7 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	61.4 mg/kg dry weight
PNEC sediment (marine water)	6.14 mg/kg dry weight
PNEC (Soil)	
PNEC soil	2.32 mg/kg dry weight
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.7 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	11 mg/l

Methanol (67-56-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	20 mg/kg bodyweight/day

Acute - systemic effects, inhalation	130 mg/m³
Acute - local effects, inhalation	130 mg/m³
Long-term - systemic effects, dermal	20 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	130 mg/m³
Long-term - local effects, inhalation	130 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	4 mg/kg bodyweight/day
Acute - systemic effects, inhalation	26 mg/m³
Acute - systemic effects, oral	4 mg/kg bodyweight/day
Acute - local effects, inhalation	26 mg/m³
Long-term - systemic effects, oral	4 mg/kg bodyweight/day
Long-term - systemic effects, inhalativ	26 mg/m³
Long-term - systemic effects, dermal	4 mg/kg bodyweight/day
Long-term - local effects, inhalation	26 mg/m³

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). 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. Flame retardant antistatic protective clothing.

Respiratory protection:

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

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:	Alcoholic
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Highly flammable liquid and vapour
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:	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: May form flammable/explosive vapour-air mixture.

Oxidising properties: No oxidising properties.

9.2.2 Other safety characteristics No additional information available.

No additional information available

10 STABILITY AND REACTIVITY

10.1 Reactivity

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

Avoid contact with hot surfaces. Heat. Open flame. Sparks. Ignition sources.

10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6 Hazardous decomposition products

May release flammable gases. In case of fire: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Sulphur oxides.

11 TOXICOLOGICAL INFORMATION

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

Acute toxicity : Toxic if swallowed, in contact with skin or if inhaled.

Dimethyl sulfoxide (67-68-5)	
LD50 oral rat	28300 mg/kg
LD50 dermal rat	~ 40000 mg/kg
LC50 inhalation rat	> 5.33 mg/l air, 4 h
Methanol (67-56-1)	
LD50 oral rat	1187 - 2769 mg/kg (15 - 35 % in solution)
LC50 inhalation rat (Vapours)	128.2 mg/l air, 4 h

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: exposure)	Causes damage to organs (eye, central nervous (single system).
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 Information on other hazards

Potential adverse human health effects and symptoms

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Not classified

Dimethyl sulfoxide (67-68-5)	
LC50 fish	25000 mg/l 96 h, Danio rerio
EC50 daphnia	24600 mg/l 48 h, Daphnia magna
ErC50 algae	17000 mg/l 72 h, Raphidocelis subcapitata
Methanol (67-56-1)	
LC50 fish	15400 mg/l 96 h, Lepomis macrochirus
EC50 daphnia	18260 mg/l 96 h, Daphnia magna
ErC50 algae	~ 22000 mg/l 96 h, Raphidocelis subcapitata

12.2 Persistence and degradability

Dimethyl sulfoxide (67-68-5)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 %, 28 d
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	97 %, 20 d

12.3 Bioaccumulation

Dimethyl sulfoxide (67-68-5)	
Partition coefficient n-octanol/water (Log Pow)	-1,35 (20 °C)
Methanol (67-56-1)	
Partition coefficient n-octanol/water (Log Pow)	-0,77 (20 °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 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.

Changes compared to the previous version: -

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:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — Single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H370	Causes damage to organs
H371	May cause damage to organs

Notification:
English is acceptable for our MSDS as the following conditions are met:
- Medical specialists (users) are well educated in the English language

METHYLATION REAGENT

1 INFORMATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identifier

Product Name: Methylation Reagent

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

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
Flammable liquids, Category 2, H225
Aspiration hazard, Category 1, H304
Skin corrosion/irritation, Category 2, H315
Acute toxicity (inhalation), Category 2, H330
Specific target organ toxicity – Single exposure, Category 3, Narcosis, H336
Carcinogenicity, Category 1B, H350
Reproductive toxicity, Category 2, H361f
Specific target organ toxicity - Single exposure, Category 1, H370
Specific target organ toxicity - Repeated exposure, Category 2, H373
Hazardous to the aquatic environment - Chronic Hazard, Category 2,H411

2.2 Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms: 

Signal word: Danger

Hazardous ingredients: Hexane, branched and linear, (Trimethylsilyl)diazomethane

Hazard statements:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H330	Fatal if inhaled.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs (lungs, inhalation).
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting.

Precautionary statements:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 - Immediately call a POISON CENTER or doctor.
P331	Do NOT induce.

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

Hazard pictograms: 

Signal word: Danger

Hazardous ingredients: Hexane, branched and linear, (Trimethylsilyl)diazomethane

Hazard statements:

H304	May be fatal if swallowed and enters airways. H315 - Causes skin irritation.
H330	Fatal if inhaled.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs (lungs, inhalation).

Precautionary statements:

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 - Immediately call a POISON CENTER or doctor.

P331 Do NOT induce..

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) 2018/605.

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]
Hexane, branched and linear	(CAS no) 92112-69-1 (EC no) 295-570-2 (EC index no) 601-037-00-0, 601-007-00-7	67	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 2, H411
(Trimethylsilyl)diazomethane	(CAS no) 18107-18-1 (EC no) 605-915-4	33	Acute Tox. 2 (Inhalation), H330 Carc. 1B, H350 STOT SE 1 (Lungs) (Inhalation), H370

Full t Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor ext of H-statements: see section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures

First-aid measures general: IF exposed or concerned: Call a POISON CENTER or doctor. 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. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact: Take off immediately all contaminated clothing. IF ON SKIN: 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: Do NOT induce vomiting - aspiration hazard. Pneunomia and pulmonary oedema possible. Rinse mouth. Drink water as a precaution. Immediately call a POISON CENTER/doctor .

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects general: May cause cancer. Suspected of damaging fertility. May cause damage to organs throughprolonged or repeated exposure.

Symptoms/effects after inhalation: Fatal if inhaled. May cause drowsiness or dizziness. Causes damage to organs (lungs, inhalation).

Symptoms/effects after skin contact: Causes skin irritation.

Symptoms/effects after ingestion: May be fatal if swallowed and enters airways.

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: Carbon dioxide. Dry extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam.

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

5.2 Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

Explosion hazard: May form flammable/explosive vapour-air mixture.

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

5.3 Advice for firefighters

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 precautions, protective equipment and emergency procedures

General measures: Provide adequate ventilation. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. 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: Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Clean preferably with a detergent - Avoid the use of solvents. 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

Additional hazards when processed: Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling: Provide good ventilation in process area to prevent formation of vapour. Remove all sources of ignition. No open flames. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions: Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Keep in fireproof place. Protect from direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store locked up.

Prohibitions on mixed storage: Keep away from food, drink and animal feedingstuffs. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

7.3 Specific end use(s)

Laboratory reagent, Immunoassays.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Hexane, branched and linear (92112-69-1)		
Austria	Local name	Hydrocarbons vapour
Austria	MAK (OEL TWA) (ppm)	200 ppm (Mixtures of hydrocarbons: aromatic hydrocarbons < 1 %, n-hexane < 5 %, cyclohexanes/iso- hexanes < 25 %)
Austria	MAK (OEL TWA) (ppm)	170 ppm (Mixtures of hydrocarbons: aromatic hydrocarbons < 1 %, n-hexane < 5 %, cyclohexanes/iso- hexanes ≥ 25 %)
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	700 mg/m³ aliphatic hydrocarbons (C6-C8)
Germany	TRGS 900 Remark	2(II), AGS

n-Hexane (110-54-3)		
EU	Local name	n-Hexane
EU	IOELV TWA (mg/m³)	72 mg/m³
EU	IOELV TWA (ppm)	20 ppm
Austria	Local name	n-Hexan
Austria	MAK (OEL TWA) (mg/m³)	72 mg/m³
Austria	MAK (OEL TWA) (ppm)	20 ppm
Austria	MAK (OEL STEL) (mg/m³)	288 mg/m³
Austria	MAK (OEL STEL) (ppm)	80 ppm
Belgium	Local name	n-Hexaan # n-Hexane
Belgium	OEL TWA (mg/m³)	72 mg/m³
Belgium	OEL TWA (ppm)	20 ppm
Germany	TRGS 900 Local name	n-Hexan
Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	180 mg/m³
Germany	TRGS 900 Occupational Exposure Limit Value (ppm)	50 ppm
Germany	TRGS 900 Remark	8(II),DFG,EU,Y
Germany	TRGS 903 (BGW)	5 mg/l U, b parameter: 2,5-Hexanedione plus 4,5-Dihydroxy-2-hexanone (after hydrolysis)
Luxembourg	Local name	n-Hexane
Luxembourg	OEL TWA (mg/m³)	72 mg/m³
Luxembourg	OEL TWA (ppm)	20 ppm
Switzerland	Local name	Hexane (n-Hexane)
Switzerland	MAK (mg/m³)	180 mg/m³
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m³)	1440 mg/m³
Switzerland	KZGW (ppm	400 ppm
Switzerland	Notation (CH)	$R2^F$, SSc, H, B
Switzerland	BAT Values	5 mg/l, U, b Parameter: 2,5-Hexanedione plus 4,5-Dihydroxy-2- hexanone

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, ≥ 0.4 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. Flame retardant antistatic protective clothing.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Breathing apparatus with filter type A (EN 14387).

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:	Yellow, clear
Odour:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	96 °C
Flammability:	Highly flammable liquid and vapour
Lower and upper explosion limit:	No data available
Flash point:	-23 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Kinematic viscosity:	No data available
Solubility:	Water: insoluble
Partition coefficient n-octanol/water (log value):	Not applicable
Vapour pressure:	No data available
Density and/or relative density:	0.718
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: May form flammable/explosive vapour-air mixture.

Oxidising properties: No oxidising properties.

9.2.2 Other safety characteristics No additional information available.

No additional information available

10 STABILITY AND REACTIVITY

10.1 Reactivity

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

Avoid contact with hot surfaces. Heat. Open flame. Sparks. Ignition sources.

10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

10.6 Hazardous decomposition products

May release flammable gases. In case of fire: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Nitrogen oxides. Silicon dioxide.

11 TOXICOLOGICAL INFORMATION

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

Acute toxicity : Fatal if inhaled.

Hexane, branched and linear (92112-69-1)	
LD50 oral rat	1600 mg/kg (test material: n-hexane (110-54-3))
LD50 dermal rabbit	> 2000 mg/kg (test material: n-hexane (110-54-3))
LC50 inhalation rat (Vapours)	> 17600 mg/m³ air, 24 h (test material: n-hexane (110-54-3))

Skin corrosion/irritation: Causes skin irritation

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: May cause cancer

Reproductive toxicity: Suspected of damaging fertility

Specific target organ toxicity: exposure) Causes damage to organs (lungs, inhalation). May cause (single drowsiness or dizziness

Specific target organ toxicity: (repeated exposure) May cause damage to organs through prolonged or repeated exposure

Aspiration hazard: May be fatal if swallowed and enters airways

11.2 Information on other hazards

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

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects

Hexane, branched and linear (92112-69-1)	
LL50 fish	12 mg/l 96 h, Oncorhynchus mykiss (test material: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)
EL50 daphnia	3.0 mg/l 48 h, Daphnia magna (test material: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)
ErL50 algae	55 mg/l 72 h, Raphidocelis subcapitata (test material: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)

12.2 Persistence and degradability

Hexane, branched and linear (92112-69-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	98 %, 28 d (test material: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)

12.3 Bioaccumulation

Hexane, branched and linear (92112-69-1)	
Partition coefficient n-octanol/water (Log Pow)	4.11 (20 °C) (test material: n-hexane (110-54-3))

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 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.

Changes compared to the previous version: -

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:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — Single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H370	Causes damage to organs
H371	May cause damage to organs

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

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/m³)	8 mg/m³
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m³)	15 mg/m³
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m³)	8 mg/m³
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m³)	15 mg/m³
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m³)	8 mg/m³
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m³)	15 mg/m³
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid

Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	3 mg/m³
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/m³)	8 mg/m³
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m³)	15 mg/m³
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m³)	3 mg/m³
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m³)	6 mg/m³
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

Hydrochloric acid … % (EC 231-595-7)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	15 mg/m³
Long-term - local effects, inhalation	8 mg/m³

Hydrochloric acid … % (EC 231-595-7)	
DNEL/DMEL (General population)	
Acute - local effects, inhalation	15 mg/m³
Long-term - local effects, inhalation	8 mg/m³

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/m³ 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 effects and symptoms : Based on available data, the classification criteria are not met

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

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

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/m³)	8 mg/m³
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m³)	15 mg/m³
EU	IOELV STEL (ppm)	10 ppm
Austria	Local name	Chlorwasserstoff
Austria	MAK (OEL TWA) (mg/m³)	8 mg/m³
Austria	MAK (OEL TWA) (ppm)	5 ppm
Austria	MAK (OEL STEL) (mg/m³)	15 mg/m³
Austria	MAK (OEL STEL) (ppm)	10 ppm
Belgium	Local name	Hydrogène (chlorure d') # Waterstofchloride
Belgium	OEL TWA (mg/m³)	8 mg/m³
Belgium	OEL TWA (ppm)	5 ppm
Belgium	OEL STEL (mg/m³)	15 mg/m³
Belgium	OEL STEL (ppm)	10 ppm
Germany	TRGS 900 Local name	Hydrogenchlorid

Germany	TRGS 900 Occupational Exposure Limit Value (mg/m³)	3 mg/m³
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/m³)	8 mg/m³
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m³)	15 mg/m³
Luxembourg	OEL STEL (ppm)	10 ppm
Switzerland	Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
Switzerland	MAK (mg/m³)	3 mg/m³
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m³)	6 mg/m³
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

Hydrochloric acid … % (EC 231-595-7)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	15 mg/m³
Long-term - local effects, inhalation	8 mg/m³

Hydrochloric acid … % (EC 231-595-7)	
DNEL/DMEL (General population)	
Acute - local effects, inhalation	15 mg/m³
Long-term - local effects, inhalation	8 mg/m³

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/m³ 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 effects and symptoms : Based on available data, the classification criteria are not met

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 : 5