

**The Safety Data Sheet is usable for:**

<b>REF</b>	<b>Name</b>
BA E-2200	Kynurenine ELISA
BA E-2200R	Kynurenine ELISA

**Single components with dangerous ingredients:**

<b>REF</b>	<b>Name</b>	
BA E-0080	Stop Solution	<b>STOP-SOLN</b>
BA E-2212	Acylation Reagent	<b>ACYL-REAG</b>

**Standards and Controls:**

BA E-2201	Standard A	<b>STANDARD A</b>
BA E-2202	Standard B	<b>STANDARD B</b>
BA E-2203	Standard C	<b>STANDARD C</b>
BA E-2204	Standard D	<b>STANDARD D</b>
BA E-2205	Standard E	<b>STANDARD E</b>
BA E-2206	Standard F	<b>STANDARD F</b>
BA E-2251	Control 1	<b>CONTROL 1</b>
BA E-2252	Control 2	<b>CONTROL 2</b>

Not listed single components contain no hazardous substances in concentrations to be declared, a labelling is not required.

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Product name : Stop Solution BA E-0080  
UFI : -

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : Laboratory reagent, Immunoassays  
Use by professionals.

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet****Supplier/Manufacturer**

LDN Labor Diagnostika Nord GmbH & Co. KG  
Am Eichenhain 1  
48531 Nordhorn, Germany  
T +49 (0)5921 81970 - F +49 (0)5921 8197 201  
[support@ldn.de](mailto:support@ldn.de)

**1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

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

Corrosive to metals, Category 1 H290

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals.

**2.2. Label elements**

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Warning  
Hazard statements (CLP) : H290 - May be corrosive to metals.  
Precautionary statements (CLP) : 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) 2018/605.

# Stop Solution BA E-0080

## Safety Data Sheet

according to Regulation (EU) 2020/878

### SECTION 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

Full text of H-statements: see section 16

### SECTION 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.

### SECTION 5: Firefighting 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 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.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, 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.

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### 6.4. Reference to other sections

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

## SECTION 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 end use(s)

Laboratory reagent, Immunoassays

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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

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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.

## SECTION 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

## SECTION 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.

## SECTION 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/m <sup>3</sup>

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

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Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: 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. Information on other hazards

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
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## SECTION 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, <i>Lepomis macrochirus</i>
EC50 crustacea	> 100 mg/l 48 h, <i>Daphnia magna</i>
EC50 algae	> 100 mg/l 72 h, <i>Desmodesmus subspicatus</i>
NOEC chronic fish	0.31 mg/l 213 d, <i>Salvelinus fontinalis</i>
NOEC chronic crustacea	0.15 mg/l, <i>Tanytarsus dissimilis</i>

### 12.2. Persistence and degradability

Not required for inorganic substances.

### 12.3. Bioaccumulative potential

Not required for inorganic substances.

### 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

## SECTION 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.

## SECTION 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

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### 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

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water  
WGK Remark : Classification according to AwSV, Annex 1  
Storage class (LGK) : LGK 10 - 13  
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 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

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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.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
 Product name : Acylation Reagent BA E-2212  
 UFI : -

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : Laboratory reagent, Immunoassays  
 Use by professionals.

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet****Supplier/Manufacturer**

LDN Labor Diagnostika Nord GmbH & Co. KG  
 Am Eichenhain 1  
 48531 Nordhorn, Germany  
 T +49 (0)5921 81970 - F +49 (0)5921 8197 201  
[support@ldn.de](mailto:support@ldn.de)

**1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

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

Skin sensitisation, Category 1 H317

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
 Hazardous ingredients : N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride  
 Hazard statements (CLP) : H317 - May cause an allergic skin reaction.  
 H412 - Harmful to aquatic life with long lasting effects.  
 Precautionary statements (CLP) : P280 - Wear protective gloves.  
 P302+P352 - IF ON SKIN: Wash with plenty of water.  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P273 - Avoid release to the environment.  
 P501 - Dispose of contents/container to an authorised waste collection point.

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

Hazard pictograms (CLP) :



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GHS07

Signal word (CLP)	: Warning
Hazardous ingredients	: N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P280 - Wear protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P501 - Dispose of contents/container to an authorised waste collection point.

### 2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 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	> 90	Not classified
N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride	(CAS no) 25952-53-8 (EC no) 247-361-2	≤ 2	Acute Tox. 4 (oral), H302 Acute Tox. 3 (dermal), H311 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT RE 2, H373 (stomach) (oral) Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

## SECTION 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. 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. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
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 water as a precaution.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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

Treat symptomatically.

## SECTION 5: Firefighting 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. Sulphur oxides. Nitrogen 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.

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according to Regulation (EU) 2020/878

### SECTION 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. 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. 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.

### SECTION 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. 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

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

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

#### 7.3. Specific end use(s)

Laboratory reagent, Immunoassays.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Dimethyl sulfoxide (67-68-5)		
Austria	Local name	Dimethylsulfoxid
Austria	MAK (OEL TWA) (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup>
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/m <sup>3</sup> )	160 mg/m <sup>3</sup>
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/m <sup>3</sup> )	160 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	320 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	100 ppm
Switzerland	Notation (CH)	H

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/m <sup>3</sup>
Long-term - local effects, inhalation	17.67 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.67 mg/kg bodyweight/day

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<b>Dimethyl sulfoxide (67-68-5)</b>	
Long-term - systemic effects, inhalation	56 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	178 mg/kg bodyweight/day
Long-term - local effects, inhalation	3.13 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	17 mg/l
PNEC aqua (marine water)	1.7 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	61.4 mg/kg dry weight
PNEC sediment (marine water)	6.14 mg/kg dry weight
<b>PNEC (Soil)</b>	
PNEC soil	2.32 mg/kg dry weight
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.7 g/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	11 mg/l
<b>N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride (25952-53-8)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0.467 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.64 mg/m <sup>3</sup>
Acute - systemic effects, inhalation	1.64 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.005 mg/l
PNEC aqua (marine water)	0 mg/l
PNEC aqua (freshwater, intermittent)	0.46 mg/l
PNEC aqua (marine water, intermittent)	0.046 mg/l
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l

### 8.2. Exposure controls

#### Appropriate engineering controls:

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

#### Hand protection:

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

#### Eye protection:

Wear safety glasses (EN 166).

#### Skin and body protection:

Wear suitable protective clothing.

#### Respiratory protection:

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

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 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

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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	: 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

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

None under normal use.

### 10.4. Conditions to avoid

High temperatures.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known. In case of fire: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Sulphur oxides. Nitrogen oxides.

## SECTION 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

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

N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride (25952-53-8)	
LD50 oral rat	500 mg/kg
LD50 dermal rat	> 200 - 1000 mg/kg

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 sensitisation	: May cause an allergic skin reaction.
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

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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. Information on other hazards

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

## SECTION 12: Ecological information

### 12.1. Toxicity

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

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

N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride (25952-53-8)	
LC50 fish	4.6 mg/l 96 h, Cyprinus carpio
EC50 daphnia	0.41 mg/l 48 h, Daphnia magna
ErC50 algae	5.6 mg/l 72 h, Raphidocelis subcapitata
EC50 micro-organisms	403 mg/l 3 h, activated sludge

### 12.2. Persistence and degradability

Dimethyl sulfoxide (67-68-5)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 %, 28 d

N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride (25952-53-8)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	< 5 %, 28 d

### 12.3. Bioaccumulative potential

Dimethyl sulfoxide (67-68-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.35 (20 °C)

N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride (25952-53-8)	
Partition coefficient n-octanol/water (Log Pow)	-2.98 (20-25 °C)

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

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

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 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.

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### SECTION 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

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

##### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : WGK 2 - Significantly hazardous to water  
WGK Remark : Classification according to AwSV, Annex 1  
Storage class (LGK) : LGK 10 - 13  
Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

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### SECTION 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. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



## Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 14.07.2023

Revision date: -

Version/Replaced version: 1.0/-

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
 Product name : Standards and Controls BA E-2201, BA E-2202, BA E-2203, BA E-2204, BA E-2205, BA E-2206, BA E-2251 and BA E-2252  
 UFI : -

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory reagent, Immunoassays  
 Use by professionals.

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier/Manufacturer

LDN Labor Diagnostika Nord GmbH & Co. KG  
 Am Eichenhain 1  
 48531 Nordhorn, Germany  
 T +49 (0)5921 81970 - F +49 (0)5921 8197 201  
[support@ldn.de](mailto:support@ldn.de)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency telephone number
Germany	LDN Labor Diagnostika Nord GmbH & Co. KG	Am Eichenhain 1 48531 Nordhorn, Germany	+49 (0) 5921-81970 (Mo-Fr 8:00-16:00)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes severe skin burns and eye damage.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Warning  
 Hazard statements (CLP) : H290 - May be corrosive to metals.  
 Precautionary statements (CLP) : 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) : -

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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) 2018/605.

## SECTION 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

Full text of H-statements: see section 16

## SECTION 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.

## SECTION 5: Firefighting 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 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.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, 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.

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### 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.

## SECTION 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 end use(s)

Laboratory reagent, Immunoassays

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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

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Hydrochloric acid ... % (EC 231-595-7)		
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	4 ppm
Switzerland	Notation	SSC

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

### 8.2. Exposure controls

#### Appropriate engineering controls:

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

#### Hand protection:

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

#### Eye protection:

Wear safety glasses (EN 166).

#### Skin and body protection:

Wear suitable protective clothing.

#### Respiratory protection:

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

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 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	: 7.4-7.6
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

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## Safety Data Sheet

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### 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

## SECTION 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.

## SECTION 11: Toxicological information

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

Acute toxicity : Not classified

Based on available data, the classification criteria are not met

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

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : 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. Information on other hazards

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

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

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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. Bioaccumulative potential

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

## SECTION 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.

## SECTION 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
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#### IMDG

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

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

# Standards and Controls BA E-2201, BA E-2202, BA E-2203, BA E-2204, BA E-2205, BA E-2206, BA E-2251 and BA E-2252

## Safety Data Sheet

according to Regulation (EU) 2020/878

### 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

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : WGK 1 - Slightly hazardous to water

WGK Remark : Classification according to AwSV, Annex 1

Storage class (LGK) : LGK 10 - 13

Employment restrictions : Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 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

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## Safety Data Sheet

according to Regulation (EU) 2020/878

vPvB	Very Persistent and Very Bioaccumulative
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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.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.