

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

### AccuGENE™ 0.5 M EDTA Solution

Version 4.0

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

### 1.1 Product identifier

Product name : AccuGENE™ 0.5 M EDTA Solution  
Material number : 51234

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

Use of the Substance/Mixture : For research use only.  
Recommended restrictions on use : NOT FOR USE IN GMP MANUFACTURING, NOR HUMAN OR ANIMAL IN VIVO OR DIAGNOSTIC USE.

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

Company : **Lonza Ltd**  
Muenchensteinerstrasse 38  
CH-4002 Basel, Switzerland  
Business Telephone: +41 61 316 81 11  
**Lonza Verviers Sprl**  
Parc Industriel de Petit-Rechain  
BE-4800 Verviers, Belgium  
Business Telephone: +32 8732 1611  
**Lonza Cologne GmbH**  
Nattermannallee 1  
DE-50829 Köln, Germany  
Business Telephone: + 49 221 99 1990

E-mail address / Responsible/issuing person : sds@lonza.com

### 1.4 Emergency telephone number

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland  
Telephone: +41 61 313 94 94 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture


#### Classification (REGULATION (EC) No 1272/2008)

Specific target organ toxicity - repeated exposure, Category 2, Respiratory Tract H373: May cause damage to organs through prolonged or repeated exposure if inhaled.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
Precautionary statements	:	<p><b>Prevention:</b> P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.</p> <p><b>Response:</b> P314 Get medical advice/ attention if you feel unwell.</p> <p><b>Disposal:</b> P501 Dispose of contents/container in accordance with local regulation.</p>

Hazardous components which must be listed on the label:

Ethylenediaminetetraacetic acid disodium salt dihydrate

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. REACH Registration Number	Classification	Concentration (% w/w)
Ethylenediaminetetraacetic acid disodium salt dihydrate EDTA Disodium Salt Dihydrate	6381-92-6  01-2119486775-20-XX XX	Acute Tox. 4; H332 STOT RE 2; H373 (Respiratory Tract)  Acute toxicity estimate  Acute inhalation toxicity: 1,6 mg/l	>= 15 - < 20

For explanation of abbreviations see section 16.

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**SECTION 4: First aid measures****4.1 Description of first aid measures**

- If inhaled : Move to fresh air.  
Call a physician immediately.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.  
Take off all contaminated clothing immediately.  
Call a physician immediately.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Call a physician immediately.
- If swallowed : Immediately give plenty of water (if possible charcoal slurry).  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.

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

None known.

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

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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media : Water spray  
Dry powder  
Foam

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

- Hazardous combustion products : Nitrogen oxides (NO<sub>x</sub>)  
Sodium oxides  
Carbon oxides (CO<sub>x</sub>)

**5.3 Advice for firefighters**

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Use water spray to cool unopened containers.
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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Use respirator when performing operations involving potential exposure to vapour of the product.

**6.2 Environmental precautions**

- Environmental precautions : Try to prevent the material from entering drains or water courses.
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### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
 Dispose of in accordance with local regulations.

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : In case of insufficient ventilation, wear suitable respiratory equipment.  
 Avoid exposure - obtain special instructions before use.  
 Use only in area provided with appropriate exhaust ventilation.  
 Avoid contact with skin and eyes.

Advice on protection against fire and explosion : No special precautions required.

Hygiene measures : DANGER! Avoid contact with the skin and the eyes. Avoid breathing dust or spray mist. Wash hands before breaks and immediately after handling the product.

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

Requirements for storage areas and containers : No special storage conditions required.

### 7.3 Specific end use(s)

Specific use(s) : No information available.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Ethylenediaminetetraacetic acid disodium salt dihydrate	Workers	Inhalation	Acute local effects	3 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	25 mg/kg
	Consumers	Inhalation	Long-term local effects	0,6 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	1,2 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	1,5 mg/m <sup>3</sup>

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### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Ethylenediaminetetraacetic acid disodium salt dihydrate	Fresh water	2,2 mg/l
	Soil	0,72 mg/kg
	Sewage treatment plant	43 mg/l
	Intermittent use/release	1,2 mg/l
	Marine water	0,22 mg/l

## 8.2 Exposure controls

### Engineering measures

Avoid splashes.

### Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Material : Nitrile rubber

Rate of permeability : > 480 min

Skin and body protection

: Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
Complete suit protecting against chemicals

Respiratory protection

: In the case of vapour formation use a respirator with an approved filter.

Respirator with a vapour filter (EN 141)

Respirator with ABEK filter.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : liquid

Appearance : Aqueous solution

Colour : clear

colourless

Odour : odourless

Melting point/freezing point : No data available

Initial boiling point and boiling range : ca. 100 °C

Flammability : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

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Flash point	:	No data available
		No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	7 - 9
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies)	:	No data available
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	1,02 g/cm <sup>3</sup>
Relative vapour density	:	No data available
Particle characteristics	:	No data available

**9.2 Other information**

No data available

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

Stable under recommended storage conditions.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Stable under normal conditions.

**10.4 Conditions to avoid**

Conditions to avoid : No data available

**10.5 Incompatible materials**

Materials to avoid : Strong oxidizing agents

**10.6 Hazardous decomposition products**

No decomposition if stored normally.

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### SECTION 11: Toxicological information

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

##### Acute toxicity

- Acute oral toxicity : Remarks: No data available
- Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method
- Acute dermal toxicity : Remarks: No data available

##### Skin corrosion/irritation

Remarks: No data available

##### Serious eye damage/eye irritation

Remarks: No data available

##### Respiratory or skin sensitisation

Remarks: No data available

##### Germ cell mutagenicity

- Genotoxicity in vitro : Remarks: No data available

##### Carcinogenicity

Remarks: No data available

##### Reproductive toxicity

- Effects on fertility : Remarks: No data available

##### STOT - single exposure

Remarks: No data available

##### STOT - repeated exposure

Remarks: No data available

##### Aspiration toxicity

Remarks: No data available

#### 11.2 Information on other hazards

##### Endocrine disrupting properties

- Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**Further information**Remarks: No data is available on the product itself.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish : Remarks: No data available

**12.2 Persistence and degradability**

Biodegradability : Result: no data available

**12.3 Bioaccumulative potential**

Bioaccumulation : Remarks: No data available

**12.4 Mobility in soil**

Distribution among environmental compartments : Remarks: No data available

**12.5 Results of PBT and vPvB assessment**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Endocrine disrupting properties**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects**Additional ecological information : No data available

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

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### SECTION 14: Transport information

**IATA** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : no

**IMDG** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : Marine pollutant: no

**ADR** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : no

**RID** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : no

**DOT** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable

**TDG** : Not dangerous goods

- 14.1 UN number : Not applicable
- 14.2 Proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : no

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation

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classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

Water hazard class (Germany) : WGK 2 obviously hazardous to water

**15.2 Chemical safety assessment**

not required

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### SECTION 16: Other information

<b>Classification of the mixture:</b>	<b>Classification procedure:</b>
STOT RE 2                      H373	Calculation method

#### Full text of H-Statements

H332	:	Harmful if inhaled.
H373	:	May cause damage to organs through prolonged or repeated exposure if inhaled.

#### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
STOT RE	:	Specific target organ toxicity - repeated exposure

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE - Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR – Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC – European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL - Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

#### Further information

Date format : dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling,

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use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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