

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**AccuGENE® 10X TAE Buffer**

Version 4.0

Revision Date 26.04.2024

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

Product name : AccuGENE® 10X TAE Buffer  
Synonyms : Accugene 10X TAE Buffer  
Material number : 50844

**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)**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**Additional Labelling**

## AccuGENE® 10X TAE Buffer

EUH210 Safety data sheet available on request.

### 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)
Acetic acid	64-19-7 200-580-7 607-002-00-6 01-2119475328-30-XX XX	Flam. Liq. 3; H226 Met. Corr. 1; H290 Acute Tox. 4; H312 Skin Corr. 1A; H314 Eye Dam. 1; H318  specific concentration limit Skin Corr. 1A; H314 >= 90 % Skin Corr. 1B; H314 25 - < 90 % Skin Irrit. 2; H315 10 - < 25 % Eye Irrit. 2; H319 10 - < 25 %  Acute toxicity estimate  Acute dermal toxicity: 1 060 mg/kg	>= 1 - < 3

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

If inhaled : Move to fresh air.  
 If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.

**AccuGENE® 10X TAE Buffer**

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- In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.  
Get medical attention if irritation develops and persists.
- Wash with water and soap as a precaution.  
If on clothes, remove clothes.  
In the case of skin irritation or allergic reactions see a physician.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Call a physician if irritation develops or persists.
- Flush eyes with water as a precaution.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

- Symptoms : No information available.

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

- Treatment : Treat symptomatically.

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

- Suitable extinguishing media : Water spray
- Unsuitable extinguishing media : High volume water jet

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

- Specific hazards during firefighting : Heating or fire can release toxic gas.
- Hazardous combustion products : Nitrogen oxides (NO<sub>x</sub>)  
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.  
Use personal protective equipment.
- Further information : Use a water spray to cool fully closed containers.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Use personal protective equipment.

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**6.2 Environmental precautions**

Environmental precautions : Try to prevent the material from entering drains or water courses.

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

Methods for cleaning up : Do not flush into surface water or sanitary sewer system. Soak up with inert absorbent material.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections**

For personal protection see section 8.

For disposal considerations see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling : No special precautions required. For personal protection see section 8.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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

Requirements for storage areas and containers : Keep container tightly closed. Keep in a well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.

Advice on common storage : No special restrictions on storage with other products.

Further information on storage stability : No decomposition if stored and applied as directed.

**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**

Countries not listed may have their own country specific values.

**Occupational Exposure Limits**

European Union

## AccuGENE® 10X TAE Buffer

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TWA	10 ppm 25 mg/m <sup>3</sup>	2017/164/EU
Further information		Indicative		
		STEL	20 ppm 50 mg/m <sup>3</sup>	2017/164/EU
Further information		Indicative		

### Switzerland

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Acetic acid	64-19-7	TWA	10 ppm 25 mg/m <sup>3</sup>	2017/164/EU
		STEL	20 ppm 50 mg/m <sup>3</sup>	2017/164/EU
		TWA	10 ppm 25 mg/m <sup>3</sup>	CH SUVA
		STEL	20 ppm 50 mg/m <sup>3</sup>	CH SUVA

### 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>
Acetic acid	Workers	Inhalation	Long-term local effects	1,5 mg/m <sup>3</sup>
	Workers	Inhalation	Short-term exposure, Local effects	25 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Consumers	Inhalation	Short-term exposure, Local effects	25 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term local effects	10 mg/m <sup>3</sup>

### 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
Acetic acid	Fresh water sediment	11,36 mg/kg
	Sewage treatment plant	85 mg/l
	Soil	0,478 mg/kg
	Intermittent use/release	30,58 mg/l
	Fresh water	3,058 mg/l
	Marine water	0,3058 mg/l
	Marine sediment	1,136 mg/kg

## 8.2 Exposure controls

### Personal protective equipment

**AccuGENE® 10X TAE Buffer**

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Eye protection	:	Safety glasses
Hand protection Remarks	:	Wear protective gloves. Break through time : > 480 min
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Lightweight protective clothing
Respiratory protection	:	No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical state	:	liquid
Appearance	:	Aqueous solution
Colour	:	colourless, clear
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
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature Decomposition temperature	:	No data available
pH	:	7 - 9
Viscosity Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available

**AccuGENE® 10X TAE Buffer**

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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.  
No decomposition if stored and applied as directed.

**10.2 Chemical stability**

Stable under normal conditions.  
Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Stable under recommended storage conditions.  
No hazards to be specially mentioned.

**10.4 Conditions to avoid**

Conditions to avoid : Heat

**10.5 Incompatible materials**

Materials to avoid : Oxidizing agents  
Strong acids and strong bases

**10.6 Hazardous decomposition products**

No decomposition if stored normally.  
No decomposition if used as directed.

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**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Information on likely routes of exposure : Eyes  
Ingestion

**Acute toxicity**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Acute toxicity estimate: > 2 000 mg/kg  
Method: Calculation method

**Skin corrosion/irritation**

Remarks: No data available

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## AccuGENE® 10X TAE Buffer

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### 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

No aspiration toxicity classification

## 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.

### Further information

Remarks: Health injuries are not known or expected under normal use.

Remarks: No data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish : Remarks: No data available

### 12.2 Persistence and degradability

Biodegradability : Remarks: No data available

### 12.3 Bioaccumulative potential



## AccuGENE® 10X TAE Buffer

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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 contents/container in accordance with local regulation.  
Contact waste disposal services.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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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

## AccuGENE® 10X TAE Buffer

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<b>ADR</b>	:	Not dangerous goods
<b>14.1 UN number</b>	:	Not applicable
<b>14.2 Proper shipping name</b>	:	Not applicable
<b>14.3 Transport hazard class(es)</b>	:	Not applicable
<b>14.4 Packing group</b>	:	Not applicable
<b>14.5 Environmental hazards</b>	:	no
<b>RID</b>	:	Not dangerous goods
<b>14.1 UN number</b>	:	Not applicable
<b>14.2 Proper shipping name</b>	:	Not applicable
<b>14.3 Transport hazard class(es)</b>	:	Not applicable
<b>14.4 Packing group</b>	:	Not applicable
<b>14.5 Environmental hazards</b>	:	no
<b>DOT</b>	:	Not dangerous goods
<b>14.1 UN number</b>	:	Not applicable
<b>14.2 Proper shipping name</b>	:	Not applicable
<b>14.3 Transport hazard class(es)</b>	:	Not applicable
<b>14.4 Packing group</b>	:	Not applicable
<b>TDG</b>	:	Not dangerous goods
<b>14.1 UN number</b>	:	Not applicable
<b>14.2 Proper shipping name</b>	:	Not applicable
<b>14.3 Transport hazard class(es)</b>	:	Not applicable
<b>14.4 Packing group</b>	:	Not applicable
<b>14.5 Environmental hazards</b>	:	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 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

## AccuGENE® 10X TAE Buffer

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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 1 slightly hazardous to water

### 15.2 Chemical safety assessment

not required

## AccuGENE® 10X TAE Buffer

### SECTION 16: Other information

#### Full text of H-Statements

H226	:	Flammable liquid and vapour.
H290	:	May be corrosive to metals.
H312	:	Harmful in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H318	:	Causes serious eye damage.

#### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Eye Dam.	:	Serious eye damage
Flam. Liq.	:	Flammable liquids
Met. Corr.	:	Corrosive to metals
Skin Corr.	:	Skin corrosion
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
CH SUVA	:	Switzerland. Limit values at the work place

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

Other information	:	This Safety Data Sheet is a generic European Safety Data Sheet and therefore does not contain all specific information for
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**AccuGENE® 10X TAE Buffer**

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each European country.

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, 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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