

IENCES® G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

# **Safety Data Sheet**

Cat. # 786-342

# XIT<sup>™</sup> Genomic DNA from Buccal Cells

Size: 250 Samples





Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking         1.1. Product identifier         Product name       : I'E Buffer         Product orde       : 036T_7041         Product orde       : 036T_7041         Product orde       : 036T_7041         Product orop       : Trade product         1.2. Relevant identified uses of the substance or mixture and uses advised against         1.2.1. Relevant identified uses         Main use category       : Research purposes         1.2. Uses advised against         No additional information available         1.3. Details of the supplier of the safety data sheet         Geno Technology, Inc /-Biosciences         603122-1422 Saint Louis - United States         T 800-628-7730 - F 314-991-1504         technical@GBiosciences.com         1.4. Emergency telephone number         Emergency number         : Chemtre 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Init)         SECTION 2: Hazards identification         2.1. Classification of the substance or mixture         Classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygic pradice.         2.1. Label elements	
Product form : Mixture Product of the support of t	
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Not applicable	
not applicable	
3.2. Mixtures	
Name Product identifier % Classification ac	
Regulation (EC)	cording to
1272/2008 [CLP]	
tris(hydroxymethyl)aminomethane (CAS-No.) 77-86-1 0.5 - 2 Not classified (EC-No.) 201-064-4	
disodium dihydrogen ethylenediaminetetraacetate, (CAS-No.) 6381-92-6 0.05 - 0.5 Not classified	
dihydrate (EC-No.) 205-358-3	
SECTION 4: First aid measures	

4.1. Description of first aid measures		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effects, both acute and delayed No additional information available		

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**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	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the substa	ance or mixture
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measure	s
6.1. Personal precautions, protective equipm	
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information
	refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment a Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to 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.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the
Tigliene measures	product.
7.2. Conditions for safe storage, including an	
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s) No additional information available	
<b>SECTION 8: Exposure controls/persona</b>	protection
8.1. Control parameters	
No additional information available	
8.2. Exposure controls Appropriate engineering controls:	
Ensure good ventilation of the work station.	
Hand protection:	
Protective gloves	
Eye protection:	
Safety glasses	
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable respir	atory equipment

### Environmental exposure controls:

Avoid release to the environment.

<b>SECTION 9: Physical and c</b>	hemical properties	
9.1. Information on basic phys	ical and chemical properties	
Physical state	: Liquid	

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Colour	: Clear.
Odour	: None.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral) :	Not classified
Acute toxicity (dermal) :	Not classified
Acute toxicity (inhalation) :	Not classified
tris(hydroxymethyl)aminomethane (77-86-1)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
LD50 oral rat	> 2000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	Not classified
Chronic aquatic toxicity	Not classified
tris(hydroxymethyl)aminomethane (77-86-1)	
EC50 Daphnia 1	> 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae (1)	397 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
LC50 fish 1	320 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 100 mg/l (EC50; 24 h)
12.2. Persistence and degradability	
tris(hydroxymethyl)aminomethane (77-86-1)	
Persistence and degradability	Readily biodegradable in water.

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)		
Persistence and degradability Not readily biodegradable in water.		
Biochemical oxygen demand (BOD)	0.01 g O <sub>2</sub> /g substance	
12.3. Bioaccumulative potential		
tris(hydroxymethyl)aminomethane (77-86-1)		
Log Pow	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 $^\circ\text{C}$ )	
Bioaccumulative potential	Not bioaccumulative.	

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)		
Bioaccumulative potential	No bioaccumulation data available.	
12.4. Mobility in soil		
tris(hydroxymethyl)aminomethane (77-86-1)		
Log Koc	1.87 (log Koc, QSAR)	
Ecology - soil	Highly mobile in soil.	
12.5. Results of PBT and vPvB assessment		
Component		
tris(hydroxymethyl)aminomethane (77-86-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
12.6. Other adverse effects		

No additional information available

<b>SECTION 13: Disposal considerations</b>	
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.

# SECTION 14: Transport information In accordance with ADR / RID / IMDG / IATA / ADN

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

according to Regulation (EC) No. 1907/2006 (REACH) with	is amenument regulation (EO) 2010/030
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	Net wellsche
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA) Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable : 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
ADN	. Not emplicable
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: 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	
No data available	
Transport by sea	
No data available	
Air transport	
No data available	
Inland waterway transport	
No data available	
Rail transport	
No data available	
14.7. Transport in bulk according to Annex	II of Marpol and the IBC Code

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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment No chemical safety assessment has been carried out

### **SECTION 16: Other information**

#### Safety Data Sheet applicable for regions

: GB - United Kingdom

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.



Longlife Proteinase K (5mg/ml) Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the subs	anco/mixture and of the compa	ny/undortaki	20
1.1. Product identifier	ance/mixture and of the compa	iny/undertaki	ng
Product form	: Mixture		
Product name	: Longlife Proteinase K (5mg/ml)		
EC Index-No.	: 647-014-00-9		
EC-No.	: 254-457-8		
Product code	: 073L		
Type of product	: Pure substance		
Synonyms	: proteinase K / proteinase K, Glyc, P	CR-Grade SL / pr	roteinase, tritirachium album serine /
Cynonymo	tritirachium album serine / tritirachiur		
Product group	: Blend	•	
BIG No	: 37946		
1.2. Relevant identified uses of the substa	nce or mixture and uses advised a	nainst	
		guinot	
1.2.1. Relevant identified uses			
Main use category	: Research purposes		
Use of the substance/mixture	: Chemical substance for research		
	Enzyme		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of the safety da	ta sheet		
Geno Technology, Inc./ G-Biosciences			
9800 Page Avenue 63132-1429 Saint Louis - United States			
T 800-628-7730 - F 314-991-1504			
technical@GBiosciences.com - www.GBiosciences	s.com		
1.4. Emergency telephone number			
	: Chemtrec 1-800-424-9300 (USA/Canada	a), <b>+1-703-527-38</b>	387 (Intl)
SECTION 2: Hazards identification			
SECTION 2: Hazards identification 2.1. Classification of the substance or mix	ture		
2.1. Classification of the substance or mix			
2.1. Classification of the substance or mix Classification according to Regulation (EC) No			
2.1. Classification of the substance or mix			
2.1. Classification of the substance or mix Classification according to Regulation (EC) No			
2.1. Classification of the substance or mix Classification according to Regulation (EC) No. Not classified Adverse physicochemical, human health and e	1272/2008 [CLP]		
2.1. Classification of the substance or mix Classification according to Regulation (EC) No. Not classified	1272/2008 [CLP]	accordance with s	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> </ul>	1272/2008 [CLP]	accordance with g	good occupational hygiene and safety
2.1. Classification of the substance or mix Classification according to Regulation (EC) No Not classified Adverse physicochemical, human health and e To our knowledge, this product does not present a	1272/2008 [CLP]	accordance with (	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> </ul>	1272/2008 [CLP]	accordance with (	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) Not</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e</li> <li>To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> </ul>	1272/2008 [CLP]	accordance with (	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> </ul>	1272/2008 [CLP]	accordance with s	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127 No labelling applicable</li> </ul>	1272/2008 [CLP]	accordance with s	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127 No labelling applicable</li> <li>2.3. Other hazards</li> </ul>	1272/2008 [CLP]	accordance with s	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127 No labelling applicable</li> <li>2.3. Other hazards</li> </ul>	1272/2008 [CLP] nvironmental effects ny particular risk, provided it is handled in 2/2008 [CLP]	accordance with s	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e</li> <li>To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> </ul>	1272/2008 [CLP] nvironmental effects ny particular risk, provided it is handled in 2/2008 [CLP]	accordance with g	good occupational hygiene and safety
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e</li> <li>To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> </ul>	1272/2008 [CLP] nvironmental effects ny particular risk, provided it is handled in 2/2008 [CLP]	accordance with g	good occupational hygiene and safety
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<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e</li> <li>To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> </ul>	1272/2008 [CLP] nvironmental effects ny particular risk, provided it is handled in 2/2008 [CLP]	accordance with s	Classification according to
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> <li>3.2. Mixtures</li> </ul>	1272/2008 [CLP]  nvironmental effects ny particular risk, provided it is handled in 2/2008 [CLP] on ingredients		Classification according to Regulation (EC) No.
2.1. Classification of the substance or mix         Classification according to Regulation (EC) No         Not classified         Adverse physicochemical, human health and e         To our knowledge, this product does not present a         practice.         2.2. Label elements         Labelling according to Regulation (EC) No. 127         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information         3.1. Substances         Not applicable         3.2. Mixtures         Name	1272/2008 [CLP]  Avironmental effects by particular risk, provided it is handled in 2/2008 [CLP]  on ingredients  Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> <li>3.2. Mixtures</li> </ul>	1272/2008 [CLP]  Avironmental effects  Avy particular risk, provided it is handled in  2/2008 [CLP]  On ingredients  Product identifier  (CAS-No.) 7783-20-2		Classification according to Regulation (EC) No.
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> <li>3.2. Mixtures</li> <li>Name</li> <li>ammonium sulphate</li> </ul>	1272/2008 [CLP]         nvironmental effects         ny particular risk, provided it is handled in         2/2008 [CLP]         on ingredients         Product identifier         (CAS-No.) 7783-20-2 (EC-No.) 231-984-1	<mark>%</mark> > 50	Classification according to Regulation (EC) No. 1272/2008 [CLP] Not classified
2.1. Classification of the substance or mix         Classification according to Regulation (EC) No         Not classified         Adverse physicochemical, human health and e         To our knowledge, this product does not present a         practice.         2.2. Label elements         Labelling according to Regulation (EC) No. 127         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information         3.1. Substances         Not applicable         3.2. Mixtures         Name	1272/2008 [CLP]  Avironmental effects  Avy particular risk, provided it is handled in  2/2008 [CLP]  On ingredients  Product identifier  (CAS-No.) 7783-20-2	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
<ul> <li>2.1. Classification of the substance or mix</li> <li>Classification according to Regulation (EC) No.</li> <li>Not classified</li> <li>Adverse physicochemical, human health and e To our knowledge, this product does not present a practice.</li> <li>2.2. Label elements</li> <li>Labelling according to Regulation (EC) No. 127</li> <li>No labelling applicable</li> <li>2.3. Other hazards</li> <li>No additional information available</li> <li>SECTION 3: Composition/information</li> <li>3.1. Substances</li> <li>Not applicable</li> <li>3.2. Mixtures</li> <li>Name</li> <li>ammonium sulphate</li> </ul>	1272/2008 [CLP]         nvironmental effects         ny particular risk, provided it is handled in         2/2008 [CLP]         on ingredients         Product identifier         (CAS-No.) 7783-20-2 (EC-No.) 231-984-1	<mark>%</mark> > 50	Classification according to         Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Skin Irrit. 2, H315
2.1. Classification of the substance or mix         Classification according to Regulation (EC) No         Not classified         Adverse physicochemical, human health and e         To our knowledge, this product does not present a         practice.         2.2. Label elements         Labelling according to Regulation (EC) No. 127         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information         3.1. Substances         Not applicable         3.2. Mixtures         Name         ammonium sulphate         Deionized water	1272/2008 [CLP]         nvironmental effects         ny particular risk, provided it is handled in         2/2008 [CLP]         on ingredients         Product identifier         (CAS-No.) 7783-20-2 (EC-No.) 231-984-1         (CAS-No.) 7732-18-5         (CAS-No.) 7732-18-5         (CAS-No.) 254-457-8	<mark>%</mark> ≥ 50 < 49.5	Classification according to         Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Skin Irrit. 2, H315         Eye Irrit. 2, H319
2.1. Classification of the substance or mix         Classification according to Regulation (EC) No         Not classified         Adverse physicochemical, human health and e         To our knowledge, this product does not present a         practice.         2.2. Label elements         Labelling according to Regulation (EC) No. 127         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information         3.1. Substances         Not applicable         3.2. Mixtures         Name         ammonium sulphate         Deionized water	1272/2008 [CLP]         nvironmental effects         ny particular risk, provided it is handled in         2/2008 [CLP]         on ingredients         Product identifier         (CAS-No.) 7783-20-2 (EC-No.) 231-984-1         (CAS-No.) 7732-18-5         (CAS-No.) 39450-01-6	<mark>%</mark> ≥ 50 < 49.5	Classification according to         Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Skin Irrit. 2, H315

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

#### Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.
4.2. Most important symptoms and effects, b	oth acute and delayed
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: Tingling/irritation of the skin.
Symptoms/effects after eye contact	: Irritation of the eye tissue.
Symptoms/effects after ingestion	: No effects known.
Chronic symptoms	: Respiratory difficulties.
4.3. Indication of any immediate medical atte	ntion and special treatment needed
Treat symptomatically.	
SECTION 5: Eirofighting modeuros	

SECTION 5: Firenging measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
Unsuitable extinguishing media	: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.
5.2. Special hazards arising from the substant	nce or mixture
Fire hazard	: DIRECT FIRE HAZARD: Non-flammable. Most organic solids may burn if strongly heated.
Explosion hazard	: DIRECT EXPLOSION HAZARD: Most organic solids are liable to dust explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipment and emergency procedures			
6.1.1. For non-emergency personnel			
Protective equipment	: Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit.		
Emergency procedures	: Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.		
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.		
6.1.2. For emergency responders			
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".		
6.2. Environmental precautions			
Avoid release to the environment.			
6.3. Methods and material for containment and cleaning up			
For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.		

Methods for cleaning up	<ul> <li>Stop dust cloud by humidifying. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.</li> </ul>
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Avoid raising dust. Keep away from naked flames/heat. In finely divided state: use spark- /explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep container tightly closed. Powdered form: no compressed air for pumping over.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including a	ny incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: < 0 °C
Heat and ignition sources	: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area	: Keep container in a well-ventilated place. To be kept quick-frozen. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
7.3. Specific end use(s)	
No additional information available	

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
Longlife Proteinase K (5mg/ml)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	0.00004 mg/m³	
Proteinase K, Lyophilized (39450-01-6)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	0.00004 mg/m³	
8.2. Exposure controls		
Appropriate engineering controls:		
Ensure good ventilation of the work station.		
Hand protection:		
Gloves		
Eye protection:		
Face shield. In case of dust production: protective goggles		
Skin and body protection:		
Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing		
Respiratory protection:		
Dust production: dust mask with filter type P2		
Environmental exposure controls:		
Avoid release to the environment.		
SECTION 0. Devoiced and chamical property	4tion	

Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: Not applicable
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	
VOC content	:0%

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

<b>SECTION 11: Toxicological information</b>	
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
ammonium sulphate (7783-20-2)	
LD50 oral rat	4250 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 434: Acute Dermal Toxicity - Fixed Dose Procedure, Rat, Male / female, Experimental value, Dermal, 14 day(s))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Potential adverse human health effects and symptoms

: Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation.

rmful to aquatic organisms nor to cause long-term nt.
ted greenhouse gases (Regulation (EU) No 517/2014). he ozone layer (Regulation (EC) No 1005/2009).
er). No data available on ecotoxicity.
ykiss, Fresh water)
, Static system, Fresh water)
ta available.
ta available.
ta available.
ble.
alent or similar to OECD 107, 25 °C)
······································
ble.
substance available.
substance available.
substance available.
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s

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Dissolve or mix with a combustible solvent.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	<ul> <li>15 01 10* - packaging containing residues of or contaminated by dangerous substances 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals</li> </ul>

SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / ADN	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: 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
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
	. Not applicable
Transport hazard class(es) (IATA)	: Not applicable
	. Not applicable
	. Nat analizable
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: 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	
Transport regulations (ADR)	: Not subject
Transport by sea	
Transport regulations (IMDG)	: Not subject
Air transport	
Transport regulations (IATA)	: Not subject
	-

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

#### Inland waterway transport

Transport regulations (ADN)

**Rail transport** 

: Not subject

: Not subject

Transport regulations (RID)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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

:0%

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

#### 15.1.2. National regulations

No additional information available

**15.2. Chemical safety assessment** No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Full text of H- and EUH-statements:		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Resp. Sens. 1	Respiratory sensitisation, Category 1	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H335	May cause respiratory irritation.	

Safety Data Sheet applicable for regions

: GB - United Kingdom

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 (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the su 1.1. Product identifier Product form			kind
Product form			
	: Mixture		
Product name	: LongLife™ RNase		
Product code	: 079L		
roduct group	: Trade product		
.2. Relevant identified uses of the sul	ostance or mixture and uses advis	ed against	
.2.1. Relevant identified uses			
.2.2. Uses advised against lo additional information available			
.3. Details of the supplier of the safet	y data sheet		
Geno Technology, Inc./ G-Biosciences 800 Page Avenue			
3132-1429 Saint Louis - United States `800-628-7730 - F 314-991-1504			
echnical@GBiosciences.com - www.GBioscie	ences.com		
.4. Emergency telephone number	: Chemtrec 1-800-424-9300 (USA/C	anada), <b>+1-703-527</b> -	3887 (Intl)
SECTION 2: Hazards identification 2.1. Classification of the substance or			
Classification according to Regulation (EC	) NO. 1272/2008 [CLP]		
lot classified			
Adverse physicochemical, human health and for a second second preserved to be a second preserved to be a second preserved by a second preserved by a second		ed in accordance wit	h good occupational hygiene and saf
2.2. Label elements			
abelling according to Regulation (EC) No.	1272/2008 [CLP]		
abelling according to Regulation (EC) No.	1272/2008 [CLP]		
abelling according to Regulation (EC) No. Io labelling applicable 2.3. Other hazards	1272/2008 [CLP]		
abelling according to Regulation (EC) No. No labelling applicable 2.3. Other hazards	1272/2008 [CLP]		
abelling according to Regulation (EC) No. Io labelling applicable 3.3. Other hazards Io additional information available SECTION 3: Composition/informat			
abelling according to Regulation (EC) No. lo labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/informat .1. Substances			
abelling according to Regulation (EC) No. Io labelling applicable 2.3. Other hazards Io additional information available SECTION 3: Composition/informat 3.1. Substances Iot applicable			
abelling according to Regulation (EC) No. No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/informat 3.1. Substances Not applicable 3.2. Mixtures	ion on ingredients	0/	
abelling according to Regulation (EC) No. lo labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/informat .1. Substances lot applicable .2. Mixtures		%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
abelling according to Regulation (EC) No. o labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/informat .1. Substances lot applicable .2. Mixtures Name	ion on ingredients	<mark>%</mark> > 50	Regulation (EC) No.
abelling according to Regulation (EC) No. lo labelling applicable .3. Other hazards lo additional information available ECTION 3: Composition/informat .1. Substances lot applicable .2. Mixtures Name	ion on ingredients  Product identifier  (CAS-No.) 7783-20-2		Regulation (EC) No. 1272/2008 [CLP]
abelling according to Regulation (EC) No.         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/informat         3.1. Substances         Not applicable         3.2. Mixtures         Name         ammonium sulphate         Deionized water	ion on ingredients Product identifier (CAS-No.) 7783-20-2 (EC-No.) 231-984-1	> 50	Regulation (EC) No.         1272/2008 [CLP]         Not classified
A.2. Label elements     A.2. Label elements     A.2. Label elements     A.2. Label elements     A.2. Attraction applicable     A.2. Attraction applicable     A.2. Mixtures     Name     ammonium sulphate     Deionized water     ribonuclease	ion on ingredients	> 50	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified
abelling according to Regulation (EC) No. No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/informat 3.1. Substances Not applicable 3.2. Mixtures Name ammonium sulphate Deionized water	ion on ingredients	> 50	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified
abelling according to Regulation (EC) No. o labelling applicable .3. Other hazards to additional information available SECTION 3: Composition/informat .1. Substances lot applicable .2. Mixtures Name ammonium sulphate Deionized water ibonuclease	ion on ingredients	> 50	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified
abelling according to Regulation (EC) No. o labelling applicable .3. Other hazards o additional information available EECTION 3: Composition/informat .1. Substances ot applicable .2. Mixtures Name ammonium sulphate Deionized water ibonuclease EECTION 4: First aid measures .1. Description of first aid measures	ion on ingredients           Product identifier           (CAS-No.) 7783-20-2 (EC-No.) 231-984-1           (CAS-No.) 7732-18-5           (CAS-No.) 9001-99-4 (EC-No.) 232-646-6	> 50 < 45 < 5	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Not classified
abelling according to Regulation (EC) No. o labelling applicable .3. Other hazards o additional information available ECTION 3: Composition/informat .1. Substances ot applicable .2. Mixtures Name ammonium sulphate Deionized water ibonuclease ECTION 4: First aid measures .1. Description of first aid measures irst-aid measures after inhalation	ion on ingredients           Product identifier           (CAS-No.) 7783-20-2 (EC-No.) 231-984-1           (CAS-No.) 7732-18-5           (CAS-No.) 9001-99-4 (EC-No.) 232-646-6           : Remove person to fresh air and	<ul> <li>&gt; 50</li> <li>&lt; 45</li> <li>&lt; 5</li> <li>d keep comfortable for</li> </ul>	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Not classified
abelling according to Regulation (EC) No. o labelling applicable .3. Other hazards o additional information available EECTION 3: Composition/informat .1. Substances ot applicable .2. Mixtures Name ammonium sulphate Deionized water ibonuclease EECTION 4: First aid measures .1. Description of first aid measures	ion on ingredients           Product identifier           (CAS-No.) 7783-20-2 (EC-No.) 231-984-1           (CAS-No.) 7732-18-5           (CAS-No.) 9001-99-4 (EC-No.) 232-646-6	<ul> <li>&gt; 50</li> <li>&lt; 45</li> <li>&lt; 5</li> </ul>	Regulation (EC) No.         1272/2008 [CLP]         Not classified         Not classified         Not classified

First-aid measures after eye contact : Rinse eyes with water as a precaution.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

**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	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the substa	ance or mixture
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures	<b>3</b>
6.1. Personal precautions, protective equipme	
6.1.1. For non-emergency personnel	
	: Ventilate spillage area.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment an	
<b>C</b> .	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to 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.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including an	
Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: -20 °C
7.3. Specific end use(s)	
No additional information available	
<b>SECTION 8: Exposure controls/personal</b>	protection
8.1. Control parameters	
No additional information available	
8.2. Exposure controls	
Appropriate engineering controls:	
Ensure good ventilation of the work station.	
Hand protection:	

Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

In e of insufficient vent suitable resp

### Environmental exposure controls:

Avoid release to the environment.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

decording to regulation (EO) no. 1007/2000 (READIT) with its amendment regulation (EO) 2010/000		
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	
Odour threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not applicable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: No data available	
Log Pow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	: No data available	
9.2. Other information		
N a statistic scale in factors affects accessible to		

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

<b>SECTION 11: Toxicological information</b>	
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
ammonium sulphate (7783-20-2)	
LD50 oral rat	4250 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 434: Acute Dermal Toxicity - Fixed Dose Procedure, Rat, Male / female, Experimental value, Dermal, 14 day(s))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
E (44/0047 () (	

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general :	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity :	Not classified
Chronic aquatic toxicity :	Not classified
ammonium sulphate (7783-20-2)	
LC50 fish 1	53 mg/l (96 h, Oncorhynchus mykiss, Fresh water)
EC50 Daphnia 1	169 mg/l (48 h, Daphnia magna, Static system, Fresh water)
12.2. Persistence and degradability	
ribonuclease (9001-99-4)	
Persistence and degradability	Biodegradability in water: no data available.

ammonium sulphate (7783-20-2)	
Persistence and degradability Biodegradability in water: no data available.	
12.3. Bioaccumulative potential	
ribonuclease (9001-99-4)	
Bioaccumulative potential	No bioaccumulation data available.

ammonium sulphate (7783-20-2)			
bg Pow -5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)			
Bioaccumulative potential	Not bioaccumulative.		
12.4. Mobility in soil			
ammonium sulphate (7783-20-2)			
Ecology - soil	y - soil No (test)data on mobility of the substance available.		
12.5. Results of PBT and vPvB assessment			
Component			
ammonium sulphate (7783-20-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
12.6. Other adverse effects			
No additional information available			

### SECTION 13: Disposal considerations 13.1. Waste treatment methods Waste treatment methods : Waste treatment methods.

SECTION 14: Transport informat	ion	
In accordance with ADR / RID / IMDG / IATA	A / ADN	
14.1. UN number		
UN-No. (ADR)	: Not applicable	
UN-No. (IMDG)	: Not applicable	
UN-No. (IATA)	: Not applicable	
UN-No. (ADN)	: Not applicable	
UN-No. (RID)	: 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	
Proper Shipping Name (ADN)	: Not applicable	
Proper Shipping Name (RID)	: Not applicable	

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14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: 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	
No data available	
Transport by sea	
No data available	
Air transport	
No data available	
Inland waterway transport	
No data available	
Rail transport	
No data available	
14.7. Transport in bulk according to Annex	I of Marpol and the IBC Code
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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

### 15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Safety Data Sheet applicable for regions

: GB - United Kingdom

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.



XIT<sup>TM</sup> Lysis Buffer Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017

SECTION 1: Identification of the substant	co/mixturo and of the company	/undortakin	a
1.1. Product identifier	cermixture and of the company	/undertakin	9
	: Mixture		
Product name	: XIT™ Lysis Buffer		
	: 136X		
	: Trade product		
1.2. Relevant identified uses of the substance	•	inct	
	or mixture and uses advised aga	inst	
1.2.1. Relevant identified uses No additional information available			
<b>1.2.2. Uses advised against</b> No additional information available			
1.3. Details of the supplier of the safety data s	shoot		
Geno Technology, Inc./ G-Biosciences 9800 Page Avenue	Shoot		
63132-1429 Saint Louis - United States			
T 800-628-7730 - F 314-991-1504			
technical@GBiosciences.com - www.GBiosciences.com	<u>m</u>		
1.4. Emergency telephone number	emtrec <b>1-800-424-9300</b> (USA/Canada),	14 709 507 000	7 (lott)
Emergency number : Ch	lemtrec 1-800-424-9300 (USA/Canada),	+1-/03-52/-388	a (inu)
SECTION 2: Hazards identification			
2.1. Classification of the substance or mixture	2		
Classification according to Regulation (EC) No. 127	-		
	11000 [01.1		
Not classified			
Adverse physicochemical, human health and envir To our knowledge, this product does not present any p practice.		cordance with go	ood occupational hygiene and safety
2.2. Label elements			
Labelling according to Regulation (EC) No. 1272/20	08 [CLP]		
EUH-statements	: EUH210 - Safety data sheet available o	on request.	
2.3. Other hazards			
No additional information available			
SECTION 2: Composition/information on	ingradianta		
SECTION 3: Composition/information on 3.1. Substances	ingrealents		
Not applicable			
3.2. Mixtures			
	Design of the second	04	
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Deionized water	(CAS-No.) 7732-18-5	>= 80	Not classified
			Acute Tox. 4 (Oral), H302
sodium dodecyl sulphate	(CAS-No.) 151-21-3 (EC-No.) 205-788-1	2 - 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319
disodium dihydrogen ethylenediaminetetraacetate, dihydrate	(CAS-No.) 6381-92-6 (EC-No.) 205-358-3	0.5 - 2	Not classified
a adiuwa akiawida			
sodium chloride	(CAS-No.) 7647-14-5 (EC-No.) 231-598-3	0.5 - 2	Not classified

Full text of H-statements: see section 16

tris(hydroxymethyl)aminomethane

0.05 - 0.5

Not classified

(CAS-No.) 77-86-1 (EC-No.) 201-064-4

according to Regulation (EC) No. 1907/2006 (REACH) with	its amendment Regulation (EU) 2015/830	
SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
.2. Most important symptoms and effects, both acute and delayed		
No additional information available		
4.3. Indication of any immediate medical att	ention and special treatment needed	
Treat symptomatically.		
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.	
5.2. Special hazards arising from the substa		
Hazardous decomposition products in case of fire	: Toxic fumes may be released.	
5.3. Advice for firefighters		
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained	
	breathing apparatus. Complete protective clothing.	
SECTION 6: Accidental release measur		
6.1. Personal precautions, protective equip	nent and emergency procedures	
6.1.1. For non-emergency personnel		
Emergency procedures	: Ventilate spillage area.	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
	Teler to section 6. Exposure controls/personal protection .	
6.2. Environmental precautions Avoid release to the environment.		
6.3. Methods and material for containment a Methods for cleaning up	: Take up liquid spill into absorbent material.	
Other information	: Dispose of materials or solid residues at an authorized site.	
6.4. Reference to other sections	. Dispose of materials of solid residues at an authorized site.	
For further information refer to 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.	
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the	
	product.	
7.2. Conditions for safe storage, including a	ny incompatibilities	
Storage conditions	: Store in a well-ventilated place. Keep cool.	
7.3. Specific end use(s)		
No additional information available		
SECTION 8: Exposure controls/persona	al protection	
8.1. Control parameters		
No additional information available		
8.2. Exposure controls		
Appropriate engineering controls:		
Ensure good ventilation of the work station.		
Hand protection:		
Protective gloves		
Eye protection:		
Safety glasses		
Skin and body protection:		
Wear suitable protective clothing		
, J		

# XIT<sup>™</sup> Lysis Buffer

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

#### **Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

#### Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and ch	emical properties	
Physical state	: Liquid	
Colour	: No data available	
Odour	: No data available	
Odour threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not applicable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: No data available	
Log Pow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	: No data available	
9.2. Other information		

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral) :	Not classified
Acute toxicity (dermal) :	Not classified
Acute toxicity (inhalation) :	Not classified
tris(hydroxymethyl)aminomethane (77-86-1)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)

sodium chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
LD50 oral rat	> 2000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)

sodium dodecyl sulphate (151-21-3)	
LD50 oral rat	1200 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	< 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
Skin corrosion/irritation :	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

SECTION 12: Ecological information	
12.1. Toxicity	
	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity :	Not classified
Chronic aquatic toxicity :	Not classified
tris(hydroxymethyl)aminomethane (77-86-1)	
EC50 Daphnia 1	> 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae (1)	397 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

sodium chloride (7647-14-5)	
LC50 fish 1	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
LC50 fish 1	320 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 100 mg/l (EC50; 24 h)

sodium dodecyl sulphate (151-21-3)	
EC50 72h algae (1)	> 120 mg/l (DIN 38412-9, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
EC50 72h algae (2)	53 mg/l (DIN 38412-9, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Biomass)

12.2. Persistence and degradability	
tris(hydroxymethyl)aminomethane (77-86-1)	
Persistence and degradability	Readily biodegradable in water.

sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.01 g O <sub>2</sub> /g substance

sodium dodecyl sulphate (151-21-3)	
Readily biodegradable in water.	
12.3. Bioaccumulative potential	
tris(hydroxymethyl)aminomethane (77-86-1)	
-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 $^{\circ}\text{C}$ )	
Not bioaccumulative.	

sodium chloride (7647-14-5)	
Log Pow	-3 (Calculated)
Bioaccumulative potential	Not bioaccumulative.

disodium dihydrogen ethylenediaminetetraacetate, dihydrate (6381-92-6)	
Bioaccumulative potential	No bioaccumulation data available.

sodium dodecyl sulphate (151-21-3)		
BCF fish 1	3.9 - 5.3 (72 h, Cyprinus carpio)	
BCF fish 2	7.15 (Pisces, Chronic)	
Log Pow	<= -2.03 (Calculated, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)	
Bioaccumulative potential	Not bioaccumulative.	
12.4. Mobility in soil		
tris(hydroxymethyl)aminomethane (77-86-1)		
Log Koc	1.87 (log Koc, QSAR)	
Ecology - soil	Highly mobile in soil.	

sodium chloride (7647-14-5)	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

sodium dodecyl sulphate (151-21-3)	
Surface tension	0.0252 N/m (23 °C, 1 g/l, EU Method A.5: Surface tension)
Log Koc	1.545 (log Koc, SRC PCKOCWIN v2.0, Experimental value)
Ecology - soil	Highly mobile in soil.

**SECTION 13: Disposal considerations** 

12.5. Results of PBT and vPvB assessment	
Component	
tris(hydroxymethyl)aminomethane (77-86-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sodium chloride (7647-14-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sodium dodecyl sulphate (151-21-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
12.6. Other adverse effects	
No additional information available	

13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.
<b>SECTION 14: Transport information</b>	
In accordance with ADR / RID / IMDG / IATA / A	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: 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
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: 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	

# XIT™ Lysis Buffer

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#### Inland waterway transport

Not applicable

#### **Rail transport**

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code 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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

#### 15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

Safety Data Sheet applicable for regions

: GB - United Kingdom

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 s	ubstance/mixture and of the co	mpany/undertak	ring
1.1. Product identifier	abstance/mixture and of the co	inparty/andertak	
Product form	: Mixture		
Product name	: XIT™ Protein Precipitation Buf	fer	
EC-No.	: 231-598-3		
CAS-No.	: 7647-14-5		
Product code	: 139X		
ype of product	: Solution		
formula	: NaCl		
Synonyms	: sodium chloride (NaCl)		
roduct group	: Trade product		
BIG No	: 21627		
.2. Relevant identified uses of the su		ed against	
.2.1. Relevant identified uses		eu ugumst	
lo additional information available			
.2.2. Uses advised against			
I.3. Details of the supplier of the safe	tv data sheet		
Geno Technology, Inc./ G-Biosciences			
800 Page Avenue			
3132-1429 Saint Louis - United States 800-628-7730 - F 314-991-1504			
echnical@GBiosciences.com - www.GBiosc	iences.com		
.4. Emergency telephone number			
mergency number	: Chemtrec <b>1-800-424-9300</b> (USA/C	anada), <b>+1-703-527-</b> 3	3887 (Intl)
2.1. Classification of the substance o Classification according to Regulation (EC			
lot classified			
Adverse physicochemical, human health a To our knowledge, this product does not pres practice. 2.2. Label elements		ed in accordance with	n good occupational hygiene and safet
abelling according to Regulation (EC) No	o. 1272/2008 [CLP]		
lo labelling applicable			
2.3. Other hazards No additional information available			
SECTION 3: Composition/informa	tion on ingredients		
8.1. Substances			
Not applicable			
3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Deionized water	(CAS-No.) 7732-18-5	50 - 80	Not classified
sodium chloride	(CAS-No.) 7647-14-5	10 - 50	Not classified
	(EC-No.) 231-598-3	10 - 50	

SECTION 4: First aid measures				
4.1. Description of first aid measures				
First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.			
First-aid measures after inhalation	: Remove the victim into fresh air.			
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. Remove clothing before washing.			
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist.			
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink.			
4.2. Most important symptoms and effects, both acute and delayed				
Symptoms/effects	: ON CONTINUOUS EXPOSURE/CONTACT: Tingling/irritation of the skin.			
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	: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.			
Unsuitable extinguishing media	: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.			
5.2. Special hazards arising from the substance or mixture				
Hazardous decomposition products in case of fire	: Toxic fumes may be released.			
5.3. Advice for firefighters				
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			

SECTION 6: Accidental release measu 6.1. Personal precautions, protective equi	
6.1.1. For non-emergency personnel	
Protective equipment	: Gloves. Safety glasses. Protective clothing.
Emergency procedures	: Mark the danger area.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment	t and cleaning up
For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply.
Methods for cleaning up	: Liquid spill: wash down with an excess of water.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Comply with the legal requirements. Clean contaminated clothing.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including	any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage area	: Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: polyethylene.

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### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls Appropriate engineering controls:

Ensure good ventilation of the work station.

nd protection:	
ives	
e protection:	
ety glasses	
n and body protection:	
Protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable respiratory equipment	

### Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical pro	operties
9.1. Information on basic physical and che	
Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 58.44 g/mol
Colour	: Colourless.
Odour	: No data available
Odour threshold	: No data available
pH	: 7
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.1
Density	: 1056 kg/m³
Solubility	: No data available
Log Pow	: -0.3
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	
SADT	: Not applicable
VOC content	:0%
Other properties	: Clear. Neutral reaction.

SECTION 10: Stability and reactivity	
10.1. Reactivity	
The product is non-reactive under normal conditions of use, storage and transport.	
10.2. Chemical stability	
Stable under normal conditions.	
10.3. Possibility of hazardous reactions	
No dangerous reactions known under normal conditions of use.	
10.4. Conditions to avoid	
None under recommended storage and handling conditions (see section 7).	
10.5. Incompatible materials	
No additional information available	
10.6. Hazardous decomposition products	
Hazardous decomposition products.	

<b>SECTION 11: Toxicological information</b>	
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
sodium chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))
Skin corrosion/irritation	: Not classified
	pH: 7
Serious eye damage/irritation	: Not classified
	pH: 7
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information		
12.1. Toxicity		
Ecology - general :	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.	
	Slightly harmful to aquatic organisms. Not harmful to fishes. Mild water pollutant (surface water).	
Acute aquatic toxicity :	Not classified	
Chronic aquatic toxicity :	Not classified	
sodium chloride (7647-14-5)		
LC50 fish 1	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)	
12.2. Persistence and degradability		
XIT™ Protein Precipitation Buffer (7647-14-5)		
Persistence and degradability	Biodegradability in soil: not applicable.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	

sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3. Bioaccumulative potential	
XIT™ Protein Precipitation Buffer (7647-14-5)	
Log Pow	-0.3
Bioaccumulative potential	Not bioaccumulative.

sodium chloride (7647-14-5)	
Log Pow	-3 (Calculated)
Bioaccumulative potential	Not bioaccumulative.
12.4. Mobility in soil	
XIT™ Protein Precipitation Buffer (7647-14-5)	
Ecology - soil	No (test)data on mobility of the components available.

sodium chloride (7647-14-5)		
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)	
Ecology - soil	No (test)data on mobility of the substance available.	
12.5. Results of PBT and vPvB assessment		
Component		
sodium chloride (7647-14-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
12.6. Other adverse effects No additional information available		

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.
Product/Packaging disposal recommendations	: Treat using the best available techniques before discharge into drains or the aquatic environment. Remove to an authorized dump (Class I). Precipitate/make insoluble. Dehydrate. Immobilize the toxic or harmful components.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	: 16 03 04 - inorganic wastes other than those mentioned in 16 03 03

SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / ADN	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: 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
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable

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IATA Transport hazard class(es) (IATA) ADN Transport hazard class(es) (ADN) RID Transport hazard class(es) (RID) 14.4. Packing group Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID) 14.5. Environmental hazards Dangerous for the environment Marine pollutant	<ul> <li>Not applicable</li> </ul>
IATA Transport hazard class(es) (IATA) ADN Transport hazard class(es) (ADN) RID Transport hazard class(es) (RID) 14.4. Packing group Packing group (ADR) Packing group (IMDG) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID) 14.5. Environmental hazards Dangerous for the environment Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	<ul> <li>Not applicable</li> </ul>
Transport hazard class(es) (IATA) ADN Transport hazard class(es) (ADN) RID Transport hazard class(es) (RID) 14.4. Packing group Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (IATA) Packing group (RID) 14.5. Environmental hazards Dangerous for the environment Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	<ul> <li>Not applicable</li> </ul>
ADN Transport hazard class(es) (ADN) RID Transport hazard class(es) (RID) 14.4. Packing group Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (ADN) Packing group (RID) 14.5. Environmental hazards Dangerous for the environment Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	<ul> <li>Not applicable</li> </ul>
Transport hazard class(es) (ADN) <b>RID</b> Transport hazard class(es) (RID) <b>14.4. Packing group</b> Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (ADN) Packing group (RID) <b>14.5. Environmental hazards</b> Dangerous for the environment Marine pollutant Other information <b>14.6. Special precautions for user</b> Overland transport Not applicable	: Not applicable : Not applicable
RIDTransport hazard class(es) (RID)14.4. Packing groupPacking group (ADR)Packing group (IMDG)Packing group (IATA)Packing group (IATA)Packing group (RID)14.5. Environmental hazardsDangerous for the environmentMarine pollutantOther information14.6. Special precautions for userOverland transportNot applicable	: Not applicable : Not applicable
Transport hazard class(es) (RID) 14.4. Packing group Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID) 14.5. Environmental hazards Dangerous for the environment Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	: Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable
14.4. Packing groupPacking group (ADR)Packing group (IMDG)Packing group (IATA)Packing group (ADN)Packing group (RID)14.5. Environmental hazardsDangerous for the environmentMarine pollutantOther information14.6. Special precautions for userOverland transportNot applicable	: Not applicable : Not applicable : Not applicable : Not applicable : Not applicable : Not applicable
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID) <b>14.5. Environmental hazards</b> Dangerous for the environment Marine pollutant Other information <b>14.6. Special precautions for user</b> <b>Overland transport</b> Not applicable	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID) <b>14.5. Environmental hazards</b> Dangerous for the environment Marine pollutant Other information <b>14.6. Special precautions for user</b> <b>Overland transport</b> Not applicable	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
Packing group (IATA) Packing group (ADN) Packing group (RID) <b>14.5. Environmental hazards</b> Dangerous for the environment Marine pollutant Other information <b>14.6. Special precautions for user</b> <b>Overland transport</b> Not applicable	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>No</li> </ul>
Packing group (ADN) Packing group (RID) <b>14.5. Environmental hazards</b> Dangerous for the environment Marine pollutant Other information <b>14.6. Special precautions for user</b> <b>Overland transport</b> Not applicable	: Not applicable : Not applicable : No
Packing group (RID)         14.5. Environmental hazards         Dangerous for the environment         Marine pollutant         Other information         14.6. Special precautions for user         Overland transport         Not applicable	: Not applicable : No
14.5. Environmental hazards         Dangerous for the environment         Marine pollutant         Other information         14.6. Special precautions for user         Overland transport         Not applicable	: No
Dangerous for the environment Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	
Marine pollutant Other information 14.6. Special precautions for user Overland transport Not applicable	
Other information 14.6. Special precautions for user Overland transport Not applicable	· No
14.6. Special precautions for user         Overland transport         Not applicable	
Overland transport Not applicable	: No supplementary information available
Not applicable	
Transport by sea	
Not applicable	
Air transport	
Not applicable	
Inland waterway transport	
Not applicable	
Rail transport	
Not applicable	
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Not applicable	
SECTION 15: Regulatory information	

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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

VOC content	:0%

15.1.2. National regulations

No additional information available

**15.2. Chemical safety assessment** No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Safety Data Sheet applicable for regions

: GB - United Kingdom

#### 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.