

# Kit SDS Cover Sheet For Human Stem Cells

Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024

### **Product Information**

Commercial<br/>Product Name: Nucleofector® 2b Kit 1Product Name: For Human Stem CellsMaterial number: VPH-5012

### Components

Nucleofector® Vector (0.5 µg/µl in 10mM Tris, pH 8.0; 30µg)	SDS attached
Human Stem Cell Nucleofector® Solution 1	SDS attached
Supplement 1	SDS attached



## Human Stem Cell Nucleofector® Solution 1

Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
SECTION 1: Identification of the	substance/mixture and of the company	/undertaking
1.1 Product identifier		
Commercial Product Name	: Nucleofector® 2b Kit 1	
Product name	: For Human Stem Cells	
1.2 Relevant identified uses of the su	Ibstance or mixture and uses advised agai	inst
Use of the Substance/Mixture	: For Research Use Only. Not for use in	۱ diagnostic procedures.
1.3 Details of the supplier of the safe	ty data sheet	
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81 1	1
	<b>Lonza Verviers Sprl</b> Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611	
	Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 199	90
	<b>Lonza Copenhagen ApS</b> Strandhaven 12 DK-2665 Vallensbaek Strand, Denma Business Telephone: + 45 4356 7400	
E-mail address Responsible/issuing person	sds@lonza.com :	
1.4 Emergency telephone number		
Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerlar Telephone: +41 61 313 94 94 (24h)	nd

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

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

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



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### 2.2 Label elements

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

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

### 2.3 Other hazards

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

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

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

### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Components

Remarks

: No hazardous ingredients

## **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.	
In case of eye contact	: Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.	
If swallowed	<ul> <li>No hazards which require special first aid measures. Clean mouth with water and drink afterwards plenty of water Do not induce vomiting without medical advice. If you feel unwell, seek medical advice (show the label where possible).</li> </ul>	

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

Symptoms	:	No information available.
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4.3 Indication of any immediate medic	al at	ttention and special treatment needed
Treatment	:	No information available.
SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media	:	Product is compatible with standard fire-fighting agents.
5.2 Special hazards arising from the s	ubst	tance or mixture
Hazardous combustion products	:	Sodium oxides Phosphorus oxides (POx)
5.3 Advice for firefighters		
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	The product is not flammable.
		Use water spray to cool unopened containers.
SECTION 6: Accidental release me	asu	
SECTION 6: Accidental release me 6.1 Personal precautions, protective e Personal precautions		ires
6.1 Personal precautions, protective e		pres oment and emergency procedures
6.1 Personal precautions, protective e Personal precautions		pres oment and emergency procedures
<ul> <li>6.1 Personal precautions, protective e</li> <li>Personal precautions</li> <li>6.2 Environmental precautions</li> </ul>	quir :	<b>Tres</b> <b>Dement and emergency procedures</b> Wear personal protective equipment. No special environmental precautions required.
<ul> <li>6.1 Personal precautions, protective end of the second precautions</li> <li>6.2 Environmental precautions Environmental precautions </li> </ul>	quip : :	<b>Tres</b> <b>Dement and emergency procedures</b> Wear personal protective equipment. No special environmental precautions required.
<ul> <li>6.1 Personal precautions, protective ended and precautions</li> <li>6.2 Environmental precautions <ul> <li>Environmental precautions</li> </ul> </li> <li>6.3 Methods and material for containing</li> </ul>	quip : :	ares oment and emergency procedures Wear personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective endersonal precautions</li> <li>6.2 Environmental precautions <ul> <li>Environmental precautions</li> </ul> </li> <li>6.3 Methods and material for containnels Methods for cleaning up</li> </ul>	quir : nent	ares oment and emergency procedures Wear personal protective equipment. No special environmental precautions required. and cleaning up
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<ul> <li>6.1 Personal precautions, protective endersonal precautions</li> <li>6.2 Environmental precautions <ul> <li>Environmental precautions</li> </ul> </li> <li>6.3 Methods and material for contains <ul> <li>Methods for cleaning up</li> </ul> </li> <li>6.4 Reference to other sections <ul> <li>For personal protection see section</li> </ul> </li> </ul>	quir : nent	ares oment and emergency procedures Wear personal protective equipment. No special environmental precautions required. and cleaning up
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Hygiene measures	: Handle in accordance with good ind practice.	ustrial hygiene and safety

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

Requirements for storage areas and : No special storage conditions required. Store in cool place. containers

## 7.3 Specific end use(s)

Specific use(s)

: For Nucleofector™ Usage only.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Engineering measures Avoid splashes.		
Personal protective equipment		
Eye protection	:	Tightly fitting safety goggles
Hand protection		
Material	:	Nitrile rubber
Rate of permeability	:	> 480 min
Skin and body protection	:	Wear suitable protective clothing.
		No special protective equipment required.
Respiratory protection	:	No personal respiratory protective equipment normally required.

### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: Aqueous solution
Colour	: colourless



according to Regulation (EC) No. 1907/2006

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Odour	: od	ourless	
Melting point/freezing point	: ca	0 °C	
Initial boiling point and boiling range	: ca	100 °C	
Flammability	: no	data available	
Upper explosion limit / upper flammability limit	: no	data available	
Lower explosion limit / Lower flammability limit	: no	data available	
Flash point	: do	es not flash	
Auto-ignition temperature	: no	data available	
Decomposition temperature	: no	data available	
pH	: 7,2	2 - 7,4	
Viscosity	: no	data available	
Solubility(ies) Water solubility	: sol	uble	
Partition coefficient: n-octanol/water	: no	data available	
Vapour pressure	: no	data available	
Relative density	: no	data available	
Density	: ca	1 g/cm3	
Relative vapour density	: no	data available	
Particle characteristics	: no	data available	

## 9.2 Other information

no data available

# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Stable under recommended storage conditions.



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10.2 Chemical stability			
Stable under normal conditions.			
10.3 Possibility of hazardous reactions			
Hazardous reactions	:	Stable under normal conditions.	
10.4 Conditions to avoid			
Conditions to avoid	:	no data available	
10.5 Incompatible materials			
Materials to avoid	:	no data available	
<b>10.6 Hazardous decomposition product</b> No decomposition if stored normally.	s		
SECTION 11: Toxicological information	tio	1	
11.1 Information on hazard classes as o	lefi	ned in Regulation (EC) No 1272/2008	
11.2 Information on other hazards			
Endocrine disrupting properties			
Assessment	:	The substance/mixture does not contain c considered to have endocrine disrupting p to REACH Article 57(f) or Commission De (EU) 2017/2100 or Commission Regulatio levels of 0.1% or higher.	roperties according legated regulation
Further information			
		Remarks: No data is available on the prod	luct itself.
SECTION 12: Ecological information	1		
12.1 Toxicity			
Toxicity to fish	:	Remarks: no data available	
12.2 Persistence and degradability			
Biodegradability	:	Remarks: no data available	
12.3 Bioaccumulative potential			
Bioaccumulation	:	Remarks: no data available	
12.4 Mobility in soil			
Distribution among environmental	:	Remarks: no data available	



according to Regulation (EC) No. 1907/2006

## Human Stem Cell Nucleofector® Solution 1

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compartments		
12.5 Results of PBT and vPvB assessm	ent	
Assessment	: This substance/mixture contains no be either persistent, bioaccumulativ persistent and very bioaccumulative higher.	e and toxic (PBT), or very
12.6 Endocrine disrupting properties		
Endocrine disrupting potential	: The substance/mixture does not co considered to have endocrine disru to REACH Article 57(f) or Commiss (EU) 2017/2100 or Commission Re levels of 0.1% or higher.	pting properties according ion Delegated regulation
12.7 Other adverse effects		
Endocrine disrupting potential	: The substance/mixture does not co considered to have endocrine disru to REACH Article 57(f) or Commiss (EU) 2017/2100 or Commission Re levels of 0.1% or higher.	pting properties according ion Delegated regulation
Additional ecological information	: no data available	

# **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Product

: Dispose of in accordance with local regulations.



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SECTI	ON 14: Transport informati	on	
ΙΑΤΑ		Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
IMDG	CODE	Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: Marine pollutant: no	
ADR		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
RID		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	
DOT		: Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4	Packing group	: Not applicable	
14.5	Environmental hazards	: no	



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TDG		: Not dangerous goods	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> REACH - Restrictions on the manufacture, placing on the : Not applicable market and use of certain dangerous substances, preparations and articles (Annex XVII)
REACH - Candidate List of Substances of Very High Concern : Not applicable for Authorisation (Article 59).
REACH - List of substances subject to authorisation (Annex Not applicable XIV)
Regulation (EC) No 1005/2009 on substances that deplete the Not applicable ozone layer
Regulation (EC) No 850/2004 on persistent organic pollutants Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable
National regulatory information
Water hazard class (Germany) : WGK 1 slightly hazardous to water Remarks: Classification according to AwSV, Annex 1 (5.2)



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### 15.2 Chemical safety assessment

not required

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

### Full text of other abbreviations

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

#### **Further information**

Date format

: dd.mm.yyyy

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



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

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



according to Regulation (EC) No. 1907/2006

# Supplement 1

Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
SECTION 1: Identification of the s	substance/mixture and of the company	//undertaking
1.1 Product identifier		
Commercial Product Name	: Nucleofector® 2b Kit 1	
Product name	: For Human Stem Cells	
1.2 Relevant identified uses of the su	bstance or mixture and uses advised aga	inst
Use of the Substance/Mixture	: For Research Use Only. Not for use in	n diagnostic procedures.
1.3 Details of the supplier of the safe	ty data sheet	
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 81	11
	<b>Lonza Verviers Sprl</b> Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 1611	
	<b>Lonza Cologne GmbH</b> Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99 199	90
	<b>Lonza Copenhagen ApS</b> Strandhaven 12 DK-2665 Vallensbaek Strand, Denma Business Telephone: + 45 4356 7400	
E-mail address Responsible/issuing person	sds@lonza.com	
<b>1.4 Emergency telephone number</b> Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switzerlar Telephone: +41 61 313 94 94 (24h)	nd

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

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

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



according to Regulation (EC) No. 1907/2006

### Supplement 1

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### 2.2 Label elements

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

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

### 2.3 Other hazards

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

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

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

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

Components

Remarks

: No hazardous ingredients

## **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

If inhaled	: No special precautions required.
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.
In case of eye contact	: Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.
If swallowed	<ul> <li>No hazards which require special first aid measures.</li> <li>Clean mouth with water and drink afterwards plenty of water.</li> <li>Do not induce vomiting without medical advice.</li> <li>If you feel unwell, seek medical advice (show the label where possible).</li> </ul>

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

Symptoms	:	No information available.
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# Supplement 1

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4.3 Indication of any immediate medic	al a	tention and special treatment neede	d
Treatment	:	No information available.	
SECTION 5: Firefighting measures			
5.1 Extinguishing media			
Suitable extinguishing media	:	Product is compatible with standard fi	re-fighting agents.
5.2 Special hazards arising from the s	ubst	ance or mixture	
Hazardous combustion products	:	Chlorine Magnesium oxides Hydrogen chloride (HCI)	
5.3 Advice for firefighters			
Special protective equipment for firefighters	:	In the event of fire, wear self-containe	ed breathing apparatus.
Further information	:	The product is not flammable. Use water spray to cool unopened co	ntainers.
<b>6.1 Personal precautions, protective e</b> Personal precautions		oment and emergency procedures	
<b>6.1 Personal precautions, protective e</b> Personal precautions		oment and emergency procedures	s required.
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> </ul>	quir :	oment and emergency procedures Use personal protective equipment. No special environmental precautions	s required.
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> </ul>	quir :	oment and emergency procedures Use personal protective equipment. No special environmental precautions	
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> </ul>	quir :	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up	
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> </ul>	quip : nent	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up	
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section</li> </ul>	quip : nent	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up	
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section</li> <li>SECTION 7: Handling and storage</li> </ul>	quip : nent	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up	
<ul> <li>6.1 Personal precautions, protective e Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section</li> <li>SECTION 7: Handling and storage</li> </ul>	quip : nent	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up	
<ul> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containm Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section</li> <li>SECTION 7: Handling and storage</li> <li>7.1 Precautions for safe handling</li> </ul>	quir : nent : 8.	oment and emergency procedures Use personal protective equipment. No special environmental precautions and cleaning up After cleaning, flush away traces with	



according to Regulation (EC) No. 1907/2006

# **Supplement 1**

Version 3.0		Revision Date 16.12.2021	Print Date 09.05.2024
Hygiene measures	:	Handle in accordance with good indu practice.	strial hygiene and safety
7.2 Conditions for safe storage, includi	ng	any incompatibilities	
Requirements for storage areas and containers	:	No special storage conditions require	d. Store in cool place.
7.3 Specific end use(s)			
Specific use(s)	:	For Nucleofector™ Usage only.	
Occupational Exposure Limits			
8.1 Control parameters			
Occupational Exposure Limits			
Contains no substances with occ	cup	ational exposure limit values.	
8.2 Exposure controls			
Engineering measures Avoid splashes.			
Personal protective equipment			
Eye protection	:	Tightly fitting safety goggles	
Hand protection			
Material	:	Nitrile rubber	
Rate of permeability	:	> 480 min	
Skin and body protection	:	Choose body protection according to concentration of the dangerous subst No special protective equipment requ	ance at the work place.
Respiratory protection	:	No personal respiratory protective eq required.	uipment normally

## **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Colour	:	colourless	
Appearance	:	Aqueous solution	
Physical state	:	liquid	

Ref. / 00000027156



according to Regulation (EC) No. 1907/2006

# Supplement 1

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Odour	: odourless	
Melting point/freezing point	: ca. 0 °C	
Initial boiling point and boiling range	: ca. 100 °C	
Flammability	: no data available	
Upper explosion limit / upper flammability limit	: no data available	
Lower explosion limit / Lower flammability limit	: no data available	
Flash point	: no data available	
Auto-ignition temperature	: no data available	
Decomposition temperature Decomposition temperature	: no data available	
рН	: no data available	
Viscosity Viscosity, kinematic	: no data available	
Solubility(ies) Water solubility	: no data available	
Partition coefficient: n-octanol/water	: no data available	
Vapour pressure	: no data available	
Relative density	: no data available	
Density	: ca. 1 g/cm3	
Relative vapour density	: no data available	
Particle characteristics	: no data available	

# 9.2 Other information

no data available



according to Regulation (EC) No. 1907/2006

# Supplement 1

Version 3.0		Revision Date 16.12.2021	Print Date 09.05.202
SECTION 10: Stability and reactivity	7		
0.1 Reactivity Stable under recommended storage c	con	ditions.	
<b>0.2 Chemical stability</b> Stable under normal conditions.			
<b>0.3 Possibility of hazardous reactions</b> Hazardous reactions	:	Stable under normal conditions.	
<b>0.4 Conditions to avoid</b> Conditions to avoid	:	no data available	
<b>0.5 Incompatible materials</b> Materials to avoid	:	no data available	
<b>0.6 Hazardous decomposition product</b> No decomposition if stored normally.	S		
1.1 Information on hazard classes as d			
1.1 Information on hazard classes as d Acute toxicity			
1.1 Information on hazard classes as d		ined in Regulation (EC) No 1272/2008	
<b>1.1 Information on hazard classes as d</b> <b>Acute toxicity</b> Acute oral toxicity		ined in Regulation (EC) No 1272/2008 Remarks: no data available	
<b>1.1 Information on hazard classes as d Acute toxicity</b> Acute oral toxicity Acute inhalation toxicity		ined in Regulation (EC) No 1272/2008 Remarks: no data available Remarks: no data available	
<b>Acute toxicity</b> Acute oral toxicity Acute inhalation toxicity <b>Skin corrosion/irritation</b>		ined in Regulation (EC) No 1272/2008 Remarks: no data available Remarks: no data available Remarks: no data available	
11.1 Information on hazard classes as d         Acute toxicity         Acute oral toxicity         Acute inhalation toxicity         Skin corrosion/irritation         Serious eye damage/eye irritation         Respiratory or skin sensitisation         Germ cell mutagenicity		ined in Regulation (EC) No 1272/2008 Remarks: no data available Remarks: no data available Remarks: no data available Remarks: no data available	
11.1 Information on hazard classes as d         Acute toxicity         Acute oral toxicity         Acute inhalation toxicity         Skin corrosion/irritation         Serious eye damage/eye irritation         Respiratory or skin sensitisation         Germ cell mutagenicity         Genotoxicity in vitro		ined in Regulation (EC) No 1272/2008 Remarks: no data available Remarks: no data available Remarks: no data available Remarks: no data available	
Acute oral toxicityAcute inhalation toxicitySkin corrosion/irritationSerious eye damage/eye irritationRespiratory or skin sensitisationGerm cell mutagenicity		ined in Regulation (EC) No 1272/2008 Remarks: no data available Remarks: no data available Remarks: no data available Remarks: no data available	



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Reproductive toxicity		
Effects on fertility	: Remarks: no data available	
STOT - single exposure		
	Remarks: no data available	
STOT - repeated exposure	<b>-</b>	
	Remarks: no data available	
1.2 Information on other hazards		
Endocrine disrupting properties		
Assessment	: The substance/mixture does not con considered to have endocrine disrup to REACH Article 57(f) or Commission (EU) 2017/2100 or Commission Reg levels of 0.1% or higher.	oting properties according on Delegated regulation
Further information		
	Remarks: No data is available on the	e product itself.
SECTION 12: Ecological information	on	
12.1 Toxicity		
Toxicity to fish	: Remarks: no data available	
12.2 Persistence and degradability		
Biodegradability	: Result: no data available	
2.3 Bioaccumulative potential		
Bioaccumulation	: Remarks: no data available	
12.4 Mobility in soil		
Distribution among environmental compartments	: Remarks: no data available	
12.5 Results of PBT and vPvB assess	ment	
Assessment	: This substance/mixture contains no be either persistent, bioaccumulative persistent and very bioaccumulative higher.	e and toxic (PBT), or very
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12.6 Endocrine disrupting properties		
Endocrine disrupting potential	<ul> <li>The substance/mixture does not cor considered to have endocrine disrup to REACH Article 57(f) or Commissi (EU) 2017/2100 or Commission Reg levels of 0.1% or higher.</li> </ul>	oting properties according on Delegated regulation
12.7 Other adverse effects		
Endocrine disrupting potential	: The substance/mixture does not cor considered to have endocrine disrup to REACH Article 57(f) or Commissi (EU) 2017/2100 or Commission Reg levels of 0.1% or higher.	oting properties according on Delegated regulation
Additional ecological information	: no data available	

## **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Р	rodu	ıct
	louu	JUL

: Dispose of in accordance with local regulations.

## **SECTION 14: Transport information**

ΙΑΤΑ			Not dangerous goods
14.1	UN number	:	Not applicable
14.2	Proper shipping name		Not applicable
14.3	Transport hazard class		Not applicable
14.4	Packing group		Not applicable
14.5	Environmental hazards		no
IMDG-0	CODE		Not dangerous goods
14.1	UN number	:	Not applicable
14.2	Proper shipping name		Not applicable
14.3	Transport hazard class		Not applicable
14.4	Packing group		Not applicable
14.5	Environmental hazards		Marine pollutant: no

- 14.4
- Packing group Environmental hazards 14.5



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ADR		: Not dangerous goods	
14.2 F 14.3 T 14.4 F	JN number Proper shipping name Fransport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	
RID		Not dangerous goods	
14.2 F 14.3 T 14.4 F	JN number Proper shipping name Fransport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	
DOT		: Not dangerous goods	
14.2 F 14.3 T 14.4 F	JN number Proper shipping name Fransport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	
TDG		: Not dangerous goods	
14.2 F 14.3 T 14.4 F	JN number Proper shipping name Fransport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

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

Ref. / 00000027156



according to Regulation (EC) No. 1907/2006

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REACH - Restrictions on the manuface market and use of certain dangerous and articles (Annex XVII)		Not applicable		
REACH - Candidate List of Substance for Authorisation (Article 59).	es of Very High Concern :	Not applicable		
REACH - List of substances subject to XIV)	o authorisation (Annex	Not applicable		
Regulation (EC) No 1005/2009 on sul ozone layer	Regulation (EC) No 1005/2009 on substances that deplete the ozone layer			
Regulation (EU) 2019/1021 on persis (recast)	tent organic pollutants	Not applicable		
Seveso III: Directive 2012/18/EU of the major-accident hazards involving dan		of the Council on th	e control of	
National regulatory information				
Water hazard class (Germany)	: nwg not water endan Remarks: Classification		Annex 1 (2.2)	
15.2 Chemical safety assessment				

not required

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

### Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation: EC – European Community: ECHA - European Chemicals Agency: EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN – European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV – Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test



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population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide – National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL - Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

### Further information

Date format

: dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

### 99 / EN

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
SECTION 1: Identification of the	substance/mixture and of the compa	any/undertaking
1.1 Product identifier		
Commercial Product Name	: Nucleofector® 2b Kit 1	
Product name	: For Human Stem Cells	
1.2 Relevant identified uses of the su	ubstance or mixture and uses advised a	against
Use of the Substance/Mixture	: For Research Use Only. Not for us	se in diagnostic procedures.
1.3 Details of the supplier of the safe	ety data sheet	
Company	: Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland Business Telephone: +41 61 316 8	31 11
	<b>Lonza Verviers Sprl</b> Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium Business Telephone: +32 8732 16	:11
	<b>Lonza Cologne GmbH</b> Nattermannallee 1 DE-50829 Köln, Germany Business Telephone: + 49 221 99	1990
	<b>Lonza Copenhagen ApS</b> Strandhaven 12 DK-2665 Vallensbaek Strand, Den Business Telephone: + 45 4356 74	
E-mail address	_sds@lonza.com	
Responsible/issuing person		
1.4 Emergency telephone number		
Emergency telephone number	: Lonza Ltd, CH-4002 Basel, Switze Telephone: +41 61 313 94 94 (24h	

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

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

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



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### 2.2 Label elements

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

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

### 2.3 Other hazards

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

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

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

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

Components

Remarks

: No hazardous ingredients

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.	
In case of eye contact	: Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.	
If swallowed	<ul> <li>No hazards which require special first aid measures. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. If you feel unwell, seek medical advice (show the label where possible).</li> </ul>	

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

Symptoms	:	No information available.
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4.3 Indication of any immediate medica	l at	ttention and special treatment needed
Treatment	:	No information available.
SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media	:	Product is compatible with standard fire-fighting agents.
5.2 Special hazards arising from the su	bst	tance or mixture
Hazardous combustion products	:	No hazardous combustion products are known
5.3 Advice for firefighters		
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	The product is not flammable.
		Use water spray to cool unopened containers.
<b>6.1 Personal precautions, protective eq</b> Personal precautions		oment and emergency procedures
<b>6.1 Personal precautions, protective eq</b> Personal precautions		oment and emergency procedures Use personal protective equipment.
6.2 Environmental precautions	luip :	oment and emergency procedures Use personal protective equipment. No special environmental precautions required.
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> </ul>	juip : : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required.
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containmental Methods for cleaning up</li> </ul>	juip : : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containmental Methods for cleaning up</li> </ul>	uip : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containment Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section 8</li> </ul>	uip : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containment Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section 8</li> <li>SECTION 7: Handling and storage</li> </ul>	uip : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containment Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section 8</li> <li>SECTION 7: Handling and storage</li> </ul>	uip : ent	oment and emergency procedures Use personal protective equipment. No special environmental precautions required. and cleaning up
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containment Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section 8</li> <li>SECTION 7: Handling and storage</li> <li>7.1 Precautions for safe handling</li> </ul>	ent	<ul> <li>Dement and emergency procedures</li> <li>Use personal protective equipment.</li> <li>No special environmental precautions required.</li> <li>and cleaning up</li> <li>After cleaning, flush away traces with water.</li> </ul>
<ul> <li>6.1 Personal precautions, protective eq Personal precautions</li> <li>6.2 Environmental precautions Environmental precautions</li> <li>6.3 Methods and material for containment Methods for cleaning up</li> <li>6.4 Reference to other sections For personal protection see section 8</li> <li>SECTION 7: Handling and storage</li> <li>7.1 Precautions for safe handling Advice on safe handling</li> <li>Advice on protection against fire and</li> </ul>	ent	<ul> <li>bment and emergency procedures</li> <li>Use personal protective equipment.</li> <li>No special environmental precautions required.</li> <li>and cleaning up</li> <li>After cleaning, flush away traces with water.</li> </ul>



# Nucleofector® Vector (0.5 µg/µl in 10mM Tris, pH 8.0; 30µg)

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		practice.	
7.2 Conditions for safe storage, including	g a	any incompatibilities	
	-	No special storage conditions required. Store	e in cool place.
7.3 Specific end use(s)			
Specific use(s)	:	For Nucleofector™ Usage only.	
SECTION 8: Exposure controls/perso	on	al protection	
8.1 Control parameters			
Occupational Exposure Limits			
Contains no substances with occu	upa	ational exposure limit values.	
8.2 Exposure controls			
Engineering measures Avoid splashes.			
Personal protective equipment Eye protection	:	Tightly fitting safety goggles	
Hand protection Material Rate of permeability	:	Nitrile rubber > 480 min	
Skin and body protection	:	Choose body protection according to the am concentration of the dangerous substance at No special protective equipment required.	
Respiratory protection	:	No personal respiratory protective equipmen required.	it normally

# **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: Aqueous solution
Colour	: colourless



# Nucleofector® Vector (0.5 µg/µl in 10mM Tris, pH 8.0; 30µg)

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Odour	:	odourless	
Melting point/freezing point	:	ca. 0 °C	
Initial boiling point and boiling range	:	ca. 100 °C	
Flammability	:	no data available	
Upper explosion limit / upper flammability limit	:	no data available	
Lower explosion limit / Lower flammability limit	:	no data available	
Flash point	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature Decomposition temperature	:	no data available	
рН	:	8,0	
Viscosity Viscosity, kinematic	:	no data available	
Solubility(ies) Water solubility	:	no data available	
Partition coefficient: n-octanol/water	:	no data available	
Vapour pressure	:	no data available	
Relative density	:	no data available	
Density	:	ca. 1 g/cm3	
Relative vapour density	:	no data available	
Particle characteristics	:	no data available	

no data available

# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Stable under recommended storage conditions.



Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
10.2 Chemical stability		
Stable under normal conditions.		
10.3 Possibility of hazardous reactions		
Hazardous reactions	: Stable under normal conditions.	
10.4 Conditions to avoid		
Conditions to avoid	: no data available	
10.5 Incompatible materials		
Materials to avoid	: no data available	
10.6 Hazardous decomposition products	5	

No decomposition if stored normally.

### **SECTION 11: Toxicological information**

Ref.

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

Acute toxicity		
Acute oral toxicity	:	Remarks: no data available
Acute inhalation toxicity	:	Remarks: no data available
Acute dermal toxicity	:	Remarks: no data available
Skin corrosion/irritation		Remarks: no data available
Serious eye damage/eye irritation		Remarks: no data available
Respiratory or skin sensitisation		Remarks: no data available
Germ cell mutagenicity Genotoxicity in vitro	:	Remarks: no data available
Carcinogenicity		Remarks: no data available
Reproductive toxicity		
Effects on fertility	:	Remarks: no data available
/ 00000027160		SDK_EU/EN



according to Regulation (EC) No. 1907/2006

# Nucleofector® Vector (0.5 µg/µl in 10mM Tris, pH 8.0; 30µg)

Version 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
0707		
STOT - single exposure	Remarks: no data available	
STOT - repeated exposure		
	Remarks: no data available	
11.2 Information on other hazards		
Endocrine disrupting properties		
Assessment	: The substance/mixture does not co considered to have endocrine disru to REACH Article 57(f) or Commiss (EU) 2017/2100 or Commission Re levels of 0.1% or higher.	upting properties according sion Delegated regulation
Further information		
	Remarks: No data is available on t	he product itself.
SECTION 12: Ecological information	n	
12.1 Toxicity Toxicity to fish	: Remarks: no data available	
12.2 Persistence and degradability		
Biodegradability	: Result: no data available	
12.3 Bioaccumulative potential		
Bioaccumulation	: Remarks: no data available	
12.4 Mobility in soil		
Distribution among environmental compartments	: Remarks: no data available	
12.5 Results of PBT and vPvB assessm	nent	
Assessment	: This substance/mixture contains no be either persistent, bioaccumulati persistent and very bioaccumulativ higher.	ve and toxic (PBT), or very
12.6 Endocrine disrupting properties		
Endocrine disrupting potential	: The substance/mixture does not co considered to have endocrine disru	
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Versior	n 3.0	Revision Date 16.12.2021	Print Date 09.05.2024
		to REACH Article 57(f) or Com (EU) 2017/2100 or Commissic levels of 0.1% or higher.	nmission Delegated regulation on Regulation (EU) 2018/605 at
12.7 Ot	ther adverse effects		
Er	ndocrine disrupting potential	to REACH Article 57(f) or Com	disrupting properties according
Ac	dditional ecological information	: no data available	
SECTI	ION 13: Disposal consideration	ons	
13.1 W	aste treatment methods		
Pr	oduct	: Dispose of in accordance with	local regulations.
ΙΑΤΑ		Not dangerous goods	
14.1	UN number	: Not applicable	
14.2 14.3	Proper shipping name	: Not applicable	
14.3	Transport hazard class Packing group	: Not applicable : Not applicable	
14.5	Environmental hazards	: no	
IMDG	-CODE	Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4 14.5	Packing group Environmental hazards	: Not applicable : Marine pollutant: no	
14.5		. Marine polititant. no	
ADR		Not dangerous goods	
14.1	UN number	: Not applicable	
14.2	Proper shipping name	: Not applicable	
14.3	Transport hazard class	: Not applicable	
14.4 14.5	Packing group Environmental hazards	: Not applicable : no	
14 7			



Version 3.0		Revision Date 16.12.2021	Print Date 09.05.2024
RID		: Not dangerous goods	
14.1 14.2 14.3 14.4 14.5 DOT	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> <li>Not dangerous goods</li> </ul>	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	<ul> <li>Not dangerous goods</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	
TDG		: Not dangerous goods	
14.1 14.2 14.3 14.4 14.5	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>no</li> </ul>	

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex		Not applicable



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XIV)			
Regulation (EC) No 1005/2009 on su ozone layer	bstances that deplete the	Not applicable	
Regulation (EU) 2019/1021 on persis (recast)	tent organic pollutants	Not applicable	
Seveso III: Directive 2012/18/EU of the major-accident hazards involving dan	•	of the Council on the	e control of
National regulatory information			
Water hazard class (Germany)	: nwg not water endar Remarks: Classification		Annex 1 (4)
15.2 Chemical safety assessment not required			

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

### Full text of other abbreviations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE -Acute Toxicity Estimate; AwSV - Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen / Ordinance on facilities for handling substances that are hazardous to water; BPR - Biocidal Product Regulation; bw - Body weight; CAS - Chemical Abstract Service; CLP - Classification Labelling Packaging Regulation, Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL-Derived No Effect Level; DOT - Department of Transportation; EC - European Community; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EmS (Emergency Response Procedures for Ships Carrying Dangerous Goods); EN - European Standard; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; EU OEL - European Occupational Exposure Limit; GHS -Globally Harmonized System of Classification and Labelling of Chemicals; GLP - Good Laboratory Practice; GV - Danish Exposure Limits for Substances and Materials; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk: IC50 - Half maximal inhibitory concentration: IMDG - International Maritime Dangerous Goods; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LOFT - Danish Threshold Limit Value; MAK - German Threshold Limit Value; MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NIOSH/Guide - National Institute of Safety and Health Guidebook; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NTP -National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; PEL - Permissible Exposure Limit; PNEC - Predicted no Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; REL -



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Recommended Exposure Limit; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; STEL - Short-Term Exposure Limit; TDG - Transportation of Dangerous Goods; TGG – Dutch Threshold Limit Value; TGV – Swedish OEL; TLV Threshold Limit Value; TLV-C - Threshold Limit Value Ceiling; TWA -Time Weighted Average; UDS - Unscheduled DNA Synthesis; UN - United Nations; VLE - Valeurs limites d'exposition professionnelle aux agents chimiques en France; VME - Valeur (Limite) Moyenne d'Exposition; VOC - Volatile Organic Compound[s]; WEEL - Workplace Environmental Exposure Level; % w/w Percent weight by weight; %(V) Percent Volume

#### **Further information**

Date format

dd.mm.yyyy

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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