

Kit SDS Cover Sheet For Human T Cells

Version 3.0 Revision Date 16.12.2021 Print Date 27.07.2024

Product Information

Commercial : N

: Nucleofector® 2b Kit

Product Name

Product name : For Human T Cells

Material number : VPA-1002

Components

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

SDS attached

Human T Cell Nucleofector® Solution

SDS attached

Supplement 1

SDS attached



according to Regulation (EC) No. 1907/2006

Human T Cell Nucleofector® Solution

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

1.1 Product identifier

Commercial Product Name : Nucleofector® 2b Kit
Product name : For Human T Cells

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

Use of the Substance/Mixture : For Research Use Only. Not for use in diagnostic procedures.

1.3 Details of the supplier of the safety data sheet

Company : Lonza Ltd

Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland

Business Telephone: +41 61 316 81 11

Lonza Verviers Sprl

Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium

Business Telephone: +32 8732 1611

Lonza Cologne GmbH Nattermannallee 1

DE-50829 Köln, Germany

Business Telephone: + 49 221 99 1990

Lonza Copenhagen ApS

Strandhaven 12

DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400

E-mail address sds@lonza.com

Responsible/issuing person

1.4 Emergency telephone number

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland

Telephone: +41 61 313 94 94 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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



according to Regulation (EC) No. 1907/2006

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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 : 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).

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 medical attention 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 substance or mixture

Hazardous combustion products Sodium oxides

> Carbon oxides (Cox) 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 measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up After cleaning, flush away traces with water.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : No special precautions required.

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

explosion

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Hygiene measures Handle in accordance with good industrial hygiene and safety

practice.

7.2 Conditions for safe storage, including any incompatibilities

containers

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

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 : 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 : does not flash

Auto-ignition temperature : no data available

Decomposition temperature : no data available

pH : 7,2 - 7,4

Viscosity : no data available

Solubility(ies)

Water solubility : soluble

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.



according to Regulation (EC) No. 1907/2006

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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

10.6 Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

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

11.2 Information on other hazards

Endocrine disrupting properties

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Remarks: No data is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : Remarks: no data available

12.2 Persistence and degradability

Biodegradability : Remarks: no data available

12.3 Bioaccumulative potential

Bioaccumulation : Remarks: no data available

12.4 Mobility in soil

Distribution among environmental : Remarks: no data available

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according to Regulation (EC) No. 1907/2006

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compartments

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to

be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

12.6 Endocrine disrupting properties

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Additional ecological information : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.



according to Regulation (EC) No. 1907/2006

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SECTION 14: Transport information

IATA		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	Not applicableNot applicableNot applicableNot applicableno			
IMDG-	-CODE	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	 Not applicable Not applicable Not applicable Not applicable Marine pollutant: no 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	: Not applicable: Not applicable: Not applicable: Not applicable: no			
RID		: 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	Not applicableNot applicableNot applicableNot applicableno			
DOT		: 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	Not applicableNot applicableNot applicableNot applicableno			



according to Regulation (EC) No. 1907/2006

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TDG : Not dangerous goods

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable

14.5 Environmental hazards : no

14.6 Special precautions for user

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

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.



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Supplement 1

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

1.1 Product identifier

Commercial Product Name : Nucleofector® 2b Kit
Product name : For Human T Cells

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

Use of the Substance/Mixture : For Research Use Only. Not for use in diagnostic procedures.

1.3 Details of the supplier of the safety data sheet

Company : Lonza Ltd

Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland

Business Telephone: +41 61 316 81 11

Lonza Verviers SprI

Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium

Business Telephone: +32 8732 1611

Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany

Business Telephone: + 49 221 99 1990

Lonza Copenhagen ApS

Strandhaven 12

DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400

E-mail address sds@lonza.com

Responsible/issuing person

1.4 Emergency telephone number

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland

Telephone: +41 61 313 94 94 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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



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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 : 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).

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 medical attention 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 substance 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-contained breathing apparatus.

Further information The product is not flammable.

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up After cleaning, flush away traces with water.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : No special precautions required.

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

explosion

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Hygiene measures Handle in accordance with good industrial hygiene and safety

practice.

7.2 Conditions for safe storage, including any incompatibilities

containers

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

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

Choose body protection according to the amount and Skin and body protection

concentration of the dangerous substance at the work place.

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

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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

pH : 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

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SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under normal conditions.

10.4 Conditions to avoid

Conditions to avoid : no data available

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

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

Acute toxicity

Acute oral toxicity : Remarks: no data available

Acute inhalation toxicity : 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



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Reproductive toxicity

Effects on fertility : Remarks: no data available

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 contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Remarks: No data is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : Remarks: no data available

12.2 Persistence and degradability

Biodegradability : Result: no data available

12.3 Bioaccumulative potential

Bioaccumulation : Remarks: no data available

12.4 Mobility in soil

Distribution among environmental

compartments

Remarks: no data available

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to

be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

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12.6 Endocrine disrupting properties

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Additional ecological information : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

SECTION 14: Transport information

IATA Not dangerous goods

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable

14.5 Environmental hazards : no

IMDG-CODE Not dangerous goods

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable14.5Environmental hazards: Marine pollutant: no



according to Regulation (EC) No. 1907/2006

Supplement 1

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ADR		: 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	: Not applicable: Not applicable: Not applicable: Not applicable: no	
RID		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	Not applicableNot applicableNot applicableNot applicableno	
DOT		: 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	: Not applicable: Not applicable: Not applicable: Not applicable: no	
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	Not applicableNot applicableNot applicableNot applicableno	

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



according to Regulation (EC) No. 1907/2006

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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 (EU) 2019/1021 on persistent organic pollutants

Not applicable

(recast)

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) : nwg not water endangering

Remarks: Classification according to AwSV, 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

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

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according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Commercial Product Name : Nucleofector® 2b Kit
Product name : For Human T Cells

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

Use of the Substance/Mixture : For Research Use Only. Not for use in diagnostic procedures.

1.3 Details of the supplier of the safety data sheet

Company : Lonza Ltd

Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland

Business Telephone: +41 61 316 81 11

Lonza Verviers Sprl

Parc Industriel de Petit-Rechain BE-4800 Verviers, Belgium

Business Telephone: +32 8732 1611

Lonza Cologne GmbH Nattermannallee 1 DE-50829 Köln, Germany

Business Telephone: + 49 221 99 1990

Lonza Copenhagen ApS

Strandhaven 12

DK-2665 Vallensbaek Strand, Denmark Business Telephone: + 45 4356 7400

E-mail address sds@lonza.com

Responsible/issuing person

1.4 Emergency telephone number

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland

Telephone: +41 61 313 94 94 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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



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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 : 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).

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 medical attention 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 substance 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : After cleaning, flush away traces with water.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : No special precautions required.

Advice on protection against fire and :

explosion

No special precautions required.

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

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practice.

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 Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

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



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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

pH : 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

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

10.6 Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

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

Acute toxicity

Acute oral toxicity : Remarks: no data available

Acute inhalation toxicity : 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



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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 contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Remarks: No data is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : Remarks: no data available

12.2 Persistence and degradability

Biodegradability : Result: no data available

12.3 Bioaccumulative potential

Bioaccumulation : Remarks: no data available

12.4 Mobility in soil

Distribution among environmental

compartments

Remarks: no data available

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to

be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

12.6 Endocrine disrupting properties

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according

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to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

Endocrine disrupting potential : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Additional ecological information : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

SECTION 14: Transport information

IAIA	Not dangerous good

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable

14.5 Environmental hazards : no

IMDG-CODE Not dangerous goods

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable14.5Environmental hazards: Marine pollutant: no

.

ADR Not dangerous goods

14.1UN number: Not applicable14.2Proper shipping name: Not applicable14.3Transport hazard class: Not applicable14.4Packing group: Not applicable

14.5 Environmental hazards : no



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		:	
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	
TDG		: 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	

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 : 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



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XIV)

Regulation (EC) No 1005/2009 on substances that deplete the Not applicable

ozone layer

Regulation (EU) 2019/1021 on persistent organic pollutants

Not applicable

(recast)

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) : nwg not water endangering

Remarks: Classification according to AwSV, Annex 1 (4)

15.2 Chemical safety assessment

not required

SECTION 16: Other information

Full text of other abbreviations

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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

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