

Version	Revision Date:	Date of last issue: 16.08.2021
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product identifier				
	Trade name	:	KAPA LTP Library Preparatio	n Kit	
	Product code	:	07961863001		
1.2	Relevant identified uses of the	ne s	ubstance or mixture and use	es advised against	
	Recommended restrictions on use	:	For use in research only		
1.3	Details of the supplier of the	saf	ety data sheet		
	Company	:	Roche Diagnostics Deutschla	ind GmbH	
			- Sandhoferstrasse 116 68305 Mannheim Deutschland		
	Telephone Telefax Responsible Department E-mail address	:	+496217590 +496217592890 +49(0)621-759-4223 info.dia-sds@roche.com		
1.4	1.4 Emergency telephone number				
	In case of emergencies:	:	Central Works Security Roche Diagnostics GmbH	+49(0)621-759-2203	
	Centre for detoxification:	:	Mainz Munich	+49(0)6131-19240 +49(0)89-19240	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product is a kit consisting of individual ingredients. The classification of the ingredients can be obtained from section 3. Section Label elements contains the resulting labelling for the kit.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)





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Hazard statements	:	H319 Causes serious eye irritation.H371 May cause damage to organs.
Precautionary statements	:	Prevention:P260Do not breathe mist or vapours.P264Wash skin thoroughly after handling.P280Wear eye protection/ face protection.
		Response:P308 + P311IF exposed or concerned: Call a POISONCENTER/ doctor.P337 + P313If eye irritation persists: Get medical advice/ attention.
		Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Ecological information: This substance/mixture contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

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

KAPA End-Repair Buffer (10X)

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
(R*,R*)-1,4-dimercaptobutane- 2,3-diol	3483-12-3 222-468-7 01-2120856806-42	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412 Acute toxicity esti-	>= 1,0 - < 2,5
		mate	
		Acute oral toxicity: 300,03 mg/kg	

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 **KAPA LTP Library Preparation Kit**



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For explanation of abbreviations see section 16.

Kapa A-Tailing Buffer (10X)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

Remarks : No hazardous ingredients

For explanation of abbreviations see section 16.

Kapa Ligation Buffer (5X)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

Remarks No hazardous ingredients :

For explanation of abbreviations see section 16.

KAPA PEG/NaCI

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

Remarks

: No hazardous ingredients

For explanation of abbreviations see section 16.

KAPA End Repair Enzyme Mix

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

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Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		· · ·
	Registration number		
REACH - Candidate List of Substan	nces of Very High Conce	ern for Authorisation (Art	icle 59). :
alpha-(4-(1,1,3,3-	9002-93-1	Acute Tox. 4; H302	>= 0,1 - < 0,25
Tetramethylbutyl)phenyl)-omega-		Eye Dam. 1; H318	
hydroxypoly(oxy-1,2-ethanediyl)		Aquatic Chronic 2;	
		H411	
		Acute toxicity esti-	



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mate
Acute oral toxicity: 500 mg/kg

For explanation of abbreviations see section 16.

KAPA HiFi HotStart ReadyMix (2X)

Classification (REGULATION (EC) No 1272/2008)

Specific target organ toxicity - single ex-H371: May cause damage to organs. posure, Category 2

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
tetramethylammonium chloride	75-57-0 200-880-8 01-2119970924-26	Acute Tox. 2; H300 Acute Tox. 3; H311 Skin Irrit. 2; H315 STOT SE 1; H370 Aquatic Chronic 2; H411 Acute toxicity esti- mate Acute oral toxicity: 47 mg/kg Acute dermal toxicity: 200,02 mg/kg	>= 1,0 - < 2,5
Nucleotidyltransferase, deoxyri- bonucleate	9012-90-2 232-741-2	Not classified	< 0,1

For explanation of abbreviations see section 16.

KAPA Library Amplification Primer Premixes (10X)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

Remarks

: No hazardous ingredients

For explanation of abbreviations see section 16.

KAPA Hyper Prep DNA Ligase



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Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		, , , , , , , , , , , , , , , , , , ,
	Registration number		
Kinase (phosphorylating), polynu-	37211-65-7	Not classified	>= 0,1 - < 1,0
cleotide 3' / 5'-Hydroxyl-	253-400-4		, ,
,,			

For explanation of abbreviations see section 16.

KAPA A-Tailing Enzyme

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Components

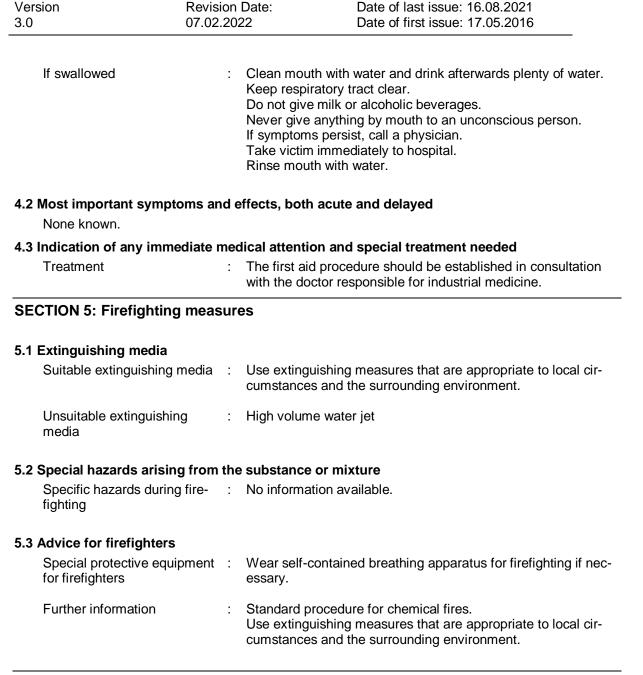
Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Nucleotidyltransferase, deoxyri- bonucleate	9012-90-2 232-741-2	Not classified	< 0,1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
lf inhaled	:	Move to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
6.2 Environmental precautions Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.



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6.3 Methods and material for containment and cleaning up

Methods for cleaning up

: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap- plication area. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
Further information on stor- age conditions	:	See label, package insert or internal guidelines
Storage class (TRGS 510)	:	12, Non Combustible Liquids
Further information on stor- age stability	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)

This product contains a substance on REACH Annex XIV : (substance of very high concern due to endocrine disrupting properties for the environment) at or above 0.1% w/w and may only be used under the exemption from authorisation for scientific research and development (including analytical activities, quality control and In-Vitro Diagnostics) under controlled conditions. Only trained and authorised personnel is allowed to handle the substance.

Wash hands before breaks and at the end of workday.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

KAPA End-Repair Buffer (10X)

Contains no substances with occupational exposure limit values.

Kapa A-Tailing Buffer (10X)

Contains no substances with occupational exposure limit values.

Kapa Ligation Buffer (5X)

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Polyethylenglycol 6000	25322-68-3	AGW (Inhalable fraction)	1.000 mg/m3	DE TRGS 900
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)	
			s compliance with the OEL ar	nd biological
	tolerance valu	ies, there is no risk c	f harming the unborn child	
		AGW (Inhalable fraction)	1.000 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 8;(II) Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Inhalable fraction)	200 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

KAPA PEG/NaCl

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis		
Polyethylenglycol	25322-68-3	AGW (Inhalable	1.000 mg/m3	DE TRGS		
8000		fraction)	_	900		
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)			
	Further inform	Further information: When there is compliance with the OEL and biological				
	tolerance valu	ies, there is no risk c	f harming the unborn child			
		AGW (Inhalable 1.000 mg/m3 DE TRGS				
		fraction)	_	900		
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)			
	Further information: When there is compliance with the OEL and biological					
	tolerance values, there is no risk of harming the unborn child					
		AGW (Inhalable	200 mg/m3	DE TRGS		
		fraction)		900		



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	Peak-limit: excursion factor (category): 2;(II)			
Further information: When there is compliance with the OEL and biological				
	tolerance values, there is no risk of harming the unborn child			

KAPA End Repair Enzyme Mix

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
glycerol	56-81-5	AGW (Inhalable fraction)	200 mg/m3	DE TRGS 900	
	Peak-limit: excursion factor (category): 2;(I)				
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child				

KAPA HiFi HotStart ReadyMix (2X)

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
glycerol	56-81-5	AGW (Inhalable fraction)	200 mg/m3	DE TRGS 900	
		Peak-limit: excursion factor (category): 2;(I)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child				
Nucleotidyltrans- ferase, deoxyribo- nucleate	9012-90-2	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)	

KAPA Library Amplification Primer Premixes (10X)

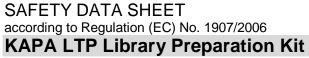
Contains no substances with occupational exposure limit values.

KAPA Hyper Prep DNA Ligase

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
glycerol	56-81-5	AGW (Inhalable fraction)	200 mg/m3	DE TRGS 900	
	Peak-limit: ex	cursion factor (categ	ory): 2;(l)		
		Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Kinase (phos- phorylating), poly- nucleotide 3' / 5'- Hydroxyl-	37211-65-7	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)	

KAPA A-Tailing Enzyme





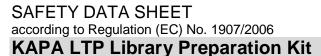
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Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
glycerol	56-81-5	AGW (Inhalable	200 mg/m3	DE TRGS
		fraction)		900
	Peak-limit: ex	cursion factor (categ	ory): 2;(I)	
	Further inform	nation: When there is	s compliance with the OEL a	nd biological
	tolerance valu	ies, there is no risk c	of harming the unborn child	
Nucleotidyltrans- ferase, deoxyribo- nucleate	9012-90-2	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)

8.2 Exposure controls

Engineering measures No data available		
Personal protective equip	ment	
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
		Use eye protection according to EN 166.
Hand protection		
Material Break through time Glove thickness	:	In case of contact through splashing: Nitrile rubber > 30 min > 0,11 mm
Material Break through time Glove thickness	:	In case of full contact: butyl-rubber > 480 min > 0,4 mm
Remarks	:	The selected protective gloves have to satisfy the specifica- tions of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and con- centration of the dangerous substance at the work place.





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

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties *KAPA End-Repair Buffer (10X)*

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	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
рН	:	7,5
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	completely miscible
Solubility in other solvents	:	No data available
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure		No data available
Relative density	:	No data available
Density	:	1,04 g/cm3



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Relative vapour density : No data available

Kapa A-Tailing Buffer (10X)

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	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
рН	:	8,0
pH Viscosity Viscosity, dynamic	:	8,0 No data available
Viscosity	:	
Viscosity Viscosity, dynamic	::	No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies)	:	No data available No data available completely miscible
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility	:	No data available No data available completely miscible
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n-	::	No data available No data available completely miscible No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water	::	No data available No data available completely miscible No data available No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water Vapour pressure	::	No data available No data available completely miscible No data available No data available

Kapa Ligation Buffer (5X)

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA LTP Library Preparation Kit

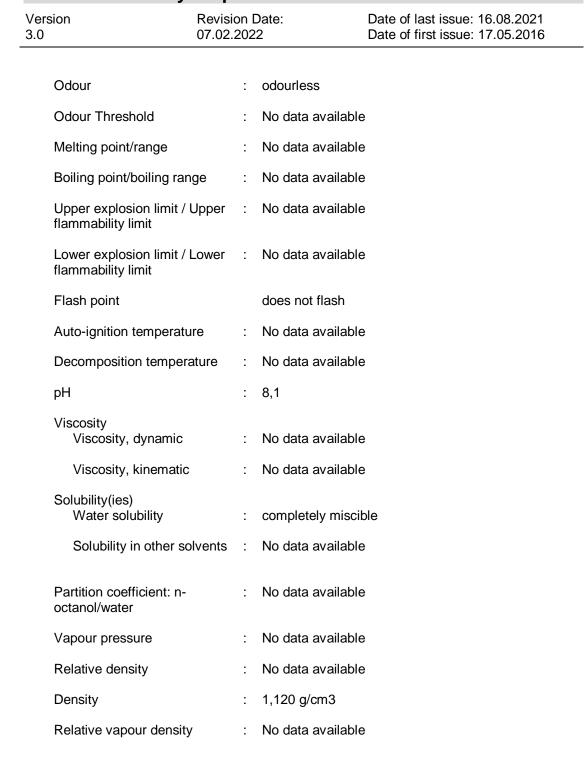
	Revision 07.02.202		Date of last issue: 16.08.2021 Date of first issue: 17.05.2016
Physical state	:	liquid	
Colour	:	colourless	
Odour	:	odourless	
Odour Threshold	:	No data availab	le
Melting point/range	:	No data availab	le
Boiling point/boiling rang	e :	No data availab	le
Upper explosion limit / U flammability limit	pper :	No data availab	le
Lower explosion limit / Lo flammability limit	ower :	No data availab	le
Flash point		does not flash	
Auto-ignition temperature	e :	No data availab	le
Decomposition temperat	ure :	No data availab	le
рН	:	7,6	
Viscosity Viscosity, dynamic	:	No data availab	le
Viscosity, kinematic	:	No data availab	le
Solubility(ies) Water solubility	:	No data availab	le
Solubility in other solv	vents :	No data availab	le
Partition coefficient: n- octanol/water	:	No data availab	le
Vapour pressure	:	No data availab	le
Relative density	:	No data availab	le
Density	:	1,040 g/cm3	
Relative vapour density	:	No data availab	le

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KAPA PEG/NaCl

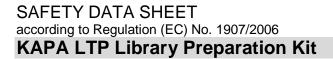
Physical state	:	liquid
Colour	:	colourless

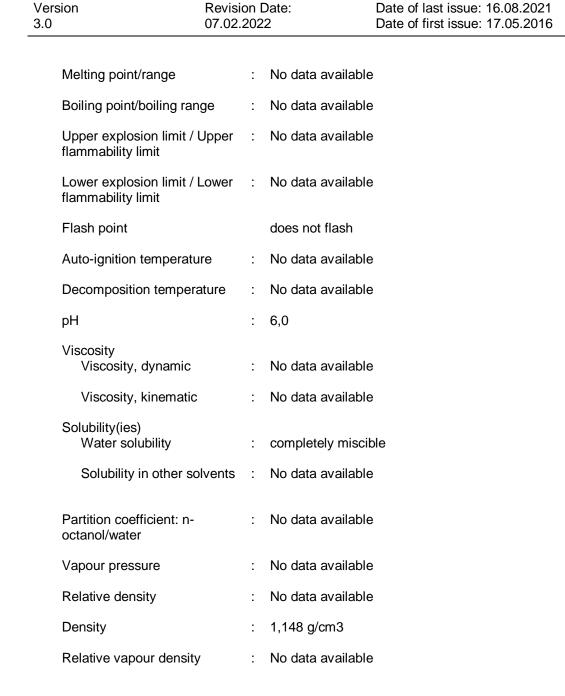
SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA LTP Library Preparation Kit



KAPA End Repair Enzyme Mix

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available

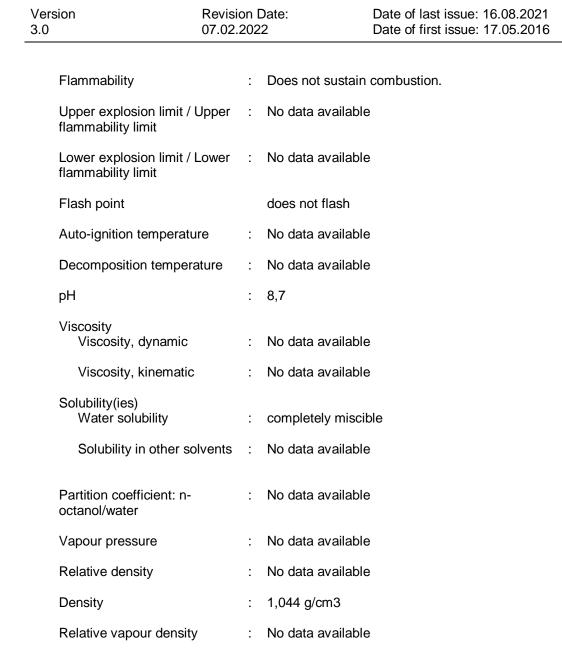




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KAPA HiFi HotStart ReadyMix (2X)

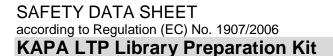
Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available

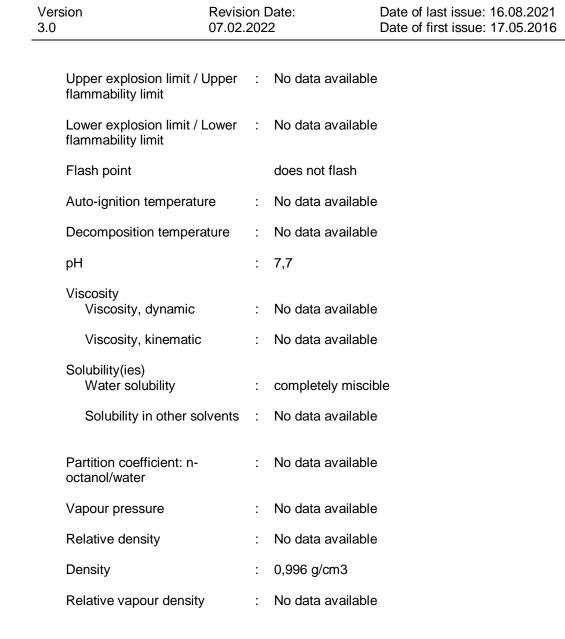


KAPA Library Amplification Primer Premixes (10X)

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	ca. 100 °C
Flammability	:	Does not sustain combustion.







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KAPA Hyper Prep DNA Ligase

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower	:	No data available



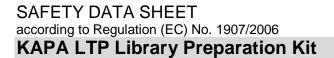
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	flammability limit			
	Flash point		does not flash	
	Auto-ignition temperature	:	No data available	9
	Decomposition temperature	e :	No data available	9
	рН	:	6,5	
	Viscosity Viscosity, dynamic	:	No data available	9
	Viscosity, kinematic	:	No data available	9
	Solubility(ies) Water solubility	:	completely misci	ble
	Solubility in other solver	nts :	No data available	9
	Partition coefficient: n- octanol/water	:	No data available	9
	Vapour pressure	:	No data available	9
	Relative density	:	No data available	9

Density	:	1,148 g/cm3
Relative vapour density	:	No data available

KAPA A-Tailing Enzyme

Physical state	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	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



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Auto-ignition temperatu	re :	No data avai	ilable
Decomposition tempera	iture :	No data avai	ilable
рН	:	6,0	
Viscosity Viscosity, dynamic	:	No data avai	ilable
Viscosity, kinematic	:	No data avai	ilable
Solubility(ies) Water solubility	:	completely n	niscible
Solubility in other so	lvents :	No data avai	ilable

Roche

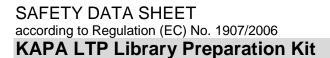
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	1,148 g/cm3
Relative vapour density	:	No data available

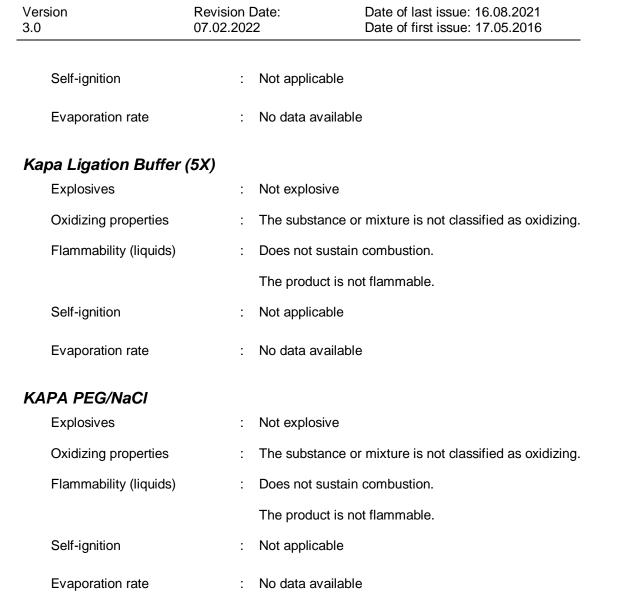
9.2 Other information KAPA End-Repair Buffer (10X)

Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Flammability (liquids)	:	Does not sustain combustion.
		The product is not flammable.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

Kapa A-Tailing Buffer (10X)

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Flammability (liquids)	:	Does not sustain combustion.
		The product is not flammable.





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KAPA End Repair Enzyme Mix

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Flammability (liquids)	:	Does not sustain combustion.
		The product is not flammable.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

KAPA HiFi HotStart ReadyMix (2X)

Explosives	:	Not explosive



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Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Flammability (liquids)	:	Does not sustain combustion.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

KAPA Library Amplification Primer Premixes (10X)

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Flammability (liquids)	:	Does not sustain combustion.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

KAPA Hyper Prep DNA Ligase

Explosives	:	Not explosive	
Oxidizing properties	: The substance or mixture is not classified as oxidizing.		
Flammability (liquids)	: Does not sustain combustion.		
		The product is not flammable.	
Self-ignition	:	Not applicable	
Evaporation rate	:	No data available	

KAPA A-Tailing Enzyme

Explosives	:	Not explosive	
Oxidizing properties	:	: The substance or mixture is not classified as oxidizing.	
Flammability (liquids)	: Does not sustain combustion.		
		The product is not flammable.	
Self-ignition	:	Not applicable	
Evaporation rate	:	No data available	



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SECTION 10: Stability and reactivity					
10.1 Reactivity					
No dangerous reaction known under conditions of normal use.					
10.2 Chemical stability					
Stable under normal conditions.					
10.3 Possibility of hazardous reactions					
Hazardous reactions : No	o dangerous reaction known under conditions of normal use.				
Να	b decomposition if stored and applied as directed.				
10.4 Conditions to avoid					
No data available					
10.5 Incompatible materials					
Materials to avoid : St	rong oxidizing agents				
10.6 Hazardous decomposition products					
No decomposition if stored and applied as directed.					

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 KAPA End-Repair Buffer (10X)

Acute toxicity

Not classified based on available information.

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Acute oral toxicity :	LD50 (Rat, female): > 300 - < 2.000 mg/kg Method: OECD Test Guideline 423 GLP: yes	
	Acute toxicity estimate: 300,03 mg/kg Method: Calculation method	
Acute toxicity (other routes of : administration)	Symptoms: May cause cardiac arrhythmia., Convulsions, Vomiting	

Skin corrosion/irritation

Not classified based on available information.

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:		
Species	: human keratinocytes	



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Exposure time Method Result GLP	-	4 h OECD Test Guideline 431 Irritating to skin. yes
Species Exposure time Method Result GLP		reconstructed human epidermis (RhE) 60 min OECD Test Guideline 439 Irritating to skin. yes

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Species Exposure time Method Result GLP	:	Chicken eye 10 s OECD Test Guideline 438 Risk of serious damage to eyes. yes
Species Exposure time Method Result GLP	: : : : : : : : : : : : : : : : : : : :	Human 6 h OECD Test Guideline 492 Risk of serious damage to eyes. yes

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 429
GLP	:	yes

:

Germ cell mutagenicity

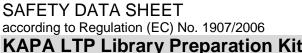
Not classified based on available information.

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Genotoxicity in vitro

Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium





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Metabolic activation: with and without metabolic activation Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) **Result:** negative GLP: yes

Test Type: Microbial mutagenesis assay (Ames test) Test system: Escherichia coli Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information. Kapa A-Tailing Buffer (10X)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure



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STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information. Kapa Ligation Buffer (5X)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information. KAPA PEG/NaCI

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation



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Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

KAPA End Repair Enzyme Mix

Acute toxicity

Not classified based on available information.

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):

Acute oral toxicity	:	LD50 Oral (Rat): 1.900 - 5.000 mg/kg
		Acute toxicity estimate: 500 mg/kg Method: Expert judgement
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 3.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):

- Result Remarks
- : Risk of serious damage to eyes.
- May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation



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Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information. KAPA HiFi HotStart ReadyMix (2X)

Acute toxicity

Not classified based on available information.

Components:

tetramethylammonium chloride:

Acute oral toxicity :	LD50 Oral (Rat): 47 mg/kg Method: OECD Test Guideline 401 GLP: no
	Acute toxicity estimate: 47 mg/kg Method: Calculation method
Acute dermal toxicity :	LD50 Dermal (Rabbit): > 200 - < 500 mg/kg Method: OECD Test Guideline 402 GLP: yes
	Acute toxicity estimate: 200,02 mg/kg Method: Calculation method

Skin corrosion/irritation

Not classified based on available information.

Components:

tetramethylammonium chloride:

Result : Irritating to skin.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

tetramethylammonium chloride:

Species	:	Rabbit
Method	:	OECD Test Guideline 405



Roch

Result

: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

tetramethylammonium chloride:

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 429

Germ cell mutagenicity

Not classified based on available information.

Components:

tetramethylammonium chloride:

Genotoxicity in vitro	:	Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium Result: negative
		Test Type: Microbial mutagenesis assay (Ames test) Test system: Escherichia coli Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause damage to organs.

Components:

tetramethylammonium chloride:

Exposure routes	:	Ingestion
Target Organs	:	Central nervous system
Assessment	:	Causes damage to organs.

÷

Nucleotidyltransferase, deoxyribonucleate:

Assessment	
/ 1000001110111	

The substance or mixture is not classified as specific target organ toxicant, single exposure.



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:

STOT - repeated exposure

Not classified based on available information.

Components:

Nucleotidyltransferase, deoxyribonucleate:

Assessment

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

tetramethylammonium chloride:

Species	:	Rat
NOAEL	:	5 mg/kg
Application Route	:	Oral
Method	:	OECD Test Guideline 421
GLP	:	yes

Aspiration toxicity

Not classified based on available information.

Components:

Nucleotidyltransferase, deoxyribonucleate:

No data available

KAPA Library Amplification Primer Premixes (10X)

Acute toxicity Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity



STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

KAPA Hyper Prep DNA Ligase

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-:

Remarks

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-: 2

Assessment

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure



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Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-:

Assessment

5 The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-:

No data available

KAPA A-Tailing Enzyme

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

Nucleotidyltransferase, deoxyribonucleate:

Assessment

The substance or mixture is not classified as specific target • organ toxicant, single exposure.

STOT - repeated exposure



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Components:

Nucleotidyltransferase, deoxyribonucleate:

Assessment

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Nucleotidyltransferase, deoxyribonucleate:

No data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

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.

KAPA End-Repair Buffer (10X)

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components consid-5 ered 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.

Kapa A-Tailing Buffer (10X)

Endocrine disrupting properties

Product:

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.

Kapa Ligation Buffer (5X)

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to



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REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

KAPA PEG/NaCl

Endocrine disrupting properties

Product:

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.

KAPA End Repair Enzyme Mix

Endocrine disrupting properties

Product:

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.

KAPA HiFi HotStart ReadyMix (2X)

Endocrine disrupting properties

Product:

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

Components:

tetramethylammonium chloride:

Remarks : Other dangerous properties can not be excluded.

KAPA Library Amplification Primer Premixes (10X)

Endocrine disrupting properties

Product:

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 layels of 0.1% or bisher
	levels of 0.1% or higher.



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KAPA Hyper Prep DNA Ligase

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components consid-: ered 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.

KAPA A-Tailing Enzyme

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components consid-: ered 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 12: Ecological information

12.1 Toxicity KAPA End-Repair Buffer (10X)

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:			
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 34,8 mg/l End point: Immobilization Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 GLP: yes Remarks: nominal concentration		
	NOEC (Daphnia magna (Water flea)): 25,0 mg/l End point: Immobilization Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 GLP: yes Remarks: nominal concentration		
Toxicity to algae/aquatic : plants	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 24,3 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test		



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Method: OECD Test Guideline 201 GLP: yes Remarks: nominal concentration

NOErC (Raphidocelis subcapitata (freshwater green alga)): 3,2 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: nominal concentration

NOEyC (Raphidocelis subcapitata (freshwater green alga)): 1,0 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes Remarks: nominal concentration

Kapa A-Tailing Buffer (10X)

No data available *Kapa Ligation Buffer (5X)*

No data available KAPA PEG/NaCI

No data available KAPA End Repair Enzyme Mix

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):			
Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 4 - 8,9 mg/l Exposure time: 96 h	
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 18 - 26 mg/l Exposure time: 48 h	
Ecotoxicology Assessment			
Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.	
Toxicity Data on Soil	:	Not expected to adsorb on soil.	
Other organisms relevant to the environment	:	No data available	

KAPA HiFi HotStart ReadyMix (2X)

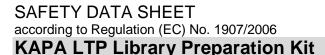
Components:

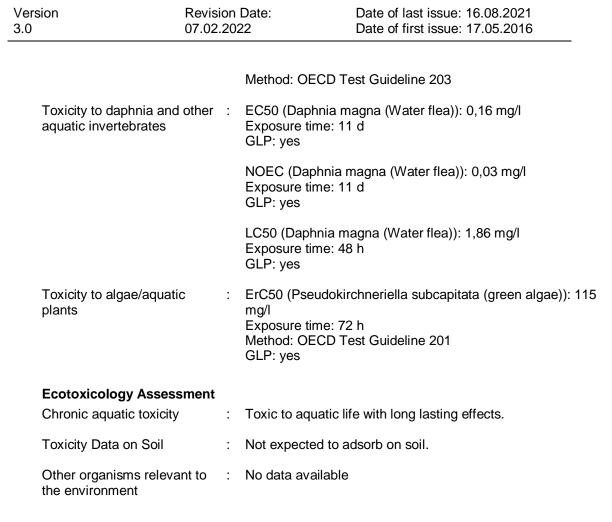
tetramethylammonium chloride:

:

Toxicity	to	fish
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LC50 (Pimephales promelas (fathead minnow)): 462 mg/l Exposure time: 96 h





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Nucleotidyltransferase, deoxyribonucleate:

Ecotoxicology Assessment		
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

KAPA Library Amplification Primer Premixes (10X)

No data available KAPA Hyper Prep DNA Ligase

Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-:

Ecotoxicology Assessment

Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

KAPA A-Tailing Enzyme



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Components:

Nucleotidyltransferase, deoxyribonucleate:

Ecotoxicology Assessment

Toxicity Data on Soil Not expected to adsorb on soil. :

Other organisms relevant to : No data available the environment

12.2 Persistence and degradability KAPA End-Repair Buffer (10X)

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 64,3 mg/l Result: Not readily biodegradable. Biodegradation: 53 % Exposure time: 43 d Method: OECD Test Guideline 301B GLP: yes Remarks: The 10 day time window criterion is not fulfilled.
Physico-chemical removabil- ity	:	Method: see user defined free text Remarks: Not abiotically degradable

Kapa A-Tailing Buffer (10X)

No data available Kapa Ligation Buffer (5X)

No data available KAPA PEG/NaCI

No data available KAPA End Repair Enzyme Mix

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):		
Biodegradability	: Biodegradation: > 60 %	
	Exposure time: 28 d	
	Method: OECD Test Guideline 301B	
	Remarks: According to the results of tests of biodegradability	
	this product is not readily biodegradable.	

KAPA HiFi HotStart ReadyMix (2X)

Components:

tetramethylammonium chloride:

Biodegradability

: Remarks: Expected to be biodegradable



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KAPA Library Amplification Primer Premixes (10X)

No data available KAPA Hyper Prep DNA Ligase

No data available KAPA A-Tailing Enzyme

No data available

12.3 Bioaccumulative potential KAPA End-Repair Buffer (10X)

Components:

(R*,R*)-1,4-dimercaptobutane-2,3-diol:

Partition coefficient: n- octanol/water	:	log Pow: 0,07 (25 °C) pH: 5.0
		Method: OECD Test Guideline 117
		GLP: yes

Kapa A-Tailing Buffer (10X)

No data available Kapa Ligation Buffer (5X)

No data available KAPA PEG/NaCI

No data available KAPA End Repair Enzyme Mix

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):

Bioaccumulation		Remarks: No bioaccumulation is to be expected (log Pow <= 4).
Partition coefficient: n- octanol/water	:	Remarks: No data available

KAPA HiFi HotStart ReadyMix (2X)

Components:

tetramethylammonium chloride:

Partition coefficient: n-: Remarks: No data available octanol/water

Nucleotidyltransferase, deoxyribonucleate:

Partition coefficient: n-: Remarks: No data available octanol/water

KAPA Library Amplification Primer Premixes (10X)



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No data available KAPA Hyper Prep DNA Ligase

Components:

Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-: Partition coefficient: n-: Remarks: No data available octanol/water

KAPA A-Tailing Enzyme

Components:

Nucleotidyltransferase, deoxyribonucleate: Partition coefficient: n-: Remarks: No data available octanol/water

12.4 Mobility in soil KAPA End-Repair Buffer (10X)

No data available Kapa A-Tailing Buffer (10X)

No data available Kapa Ligation Buffer (5X)

No data available KAPA PEG/NaCl

No data available KAPA End Repair Enzyme Mix

No data available

KAPA HiFi HotStart ReadyMix (2X) No data available

KAPA Library Amplification Primer Premixes (10X)

No data available

KAPA Hyper Prep DNA Ligase

No data available KAPA A-Tailing Enzyme

No data available

12.5 Results of PBT and vPvB assessment

KAPA End-Repair Buffer (10X)

Not relevant Kapa A-Tailing Buffer (10X)

Not relevant

Kapa Ligation Buffer (5X)

Not relevant KAPA PEG/NaCI



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Not relevant KAPA End Repair Enzyme Mix

Not relevant

KAPA HiFi HotStart ReadyMix (2X)

Not relevant KAPA Library Amplification Primer Premixes (10X)

Not relevant KAPA Hyper Prep DNA Ligase

Not relevant KAPA A-Tailing Enzyme

Not relevant

12.6 Endocrine disrupting properties

Product:

Assessment

: This substance/mixture contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

KAPA End-Repair Buffer (10X)

Product:

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.

Kapa A-Tailing Buffer (10X)

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. Kapa Ligation Buffer (5X) The substance/mixture does not contain components consid-Assessment ered 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. KAPA PEG/NaCl Assessment The substance/mixture does not contain components consid-÷ ered 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



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levels of 0.1% or higher.

KAPA End Repair Enzyme Mix

Assessment This substance/mixture contains components considered to have endocrine disrupting properties for environment, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):		
Assessment	:	The substance is considered to have endocrine disrupting properties according to REACH Article 57(f) for the environment.

KAPA HiFi HotStart ReadyMix (2X)

Product:

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.

KAPA Library Amplification Primer Premixes (10X)

The substance/mixture does not contain components consid-Assessment ered 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.

KAPA Hyper Prep DNA Ligase

Assessment The substance/mixture does not contain components consid-5 ered 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.

KAPA A-Tailing Enzyme

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.

12.7 Other adverse effects KAPA End-Repair Buffer (10X)

No data available

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Kapa A-Tailing Buffer (10X)

No data available *Kapa Ligation Buffer (5X)*

No data available KAPA PEG/NaCI

No data available KAPA End Repair Enzyme Mix

No data available

KAPA HiFi HotStart ReadyMix (2X)

No data available KAPA Library Amplification Primer Premixes (10X)

No data available KAPA Hyper Prep DNA Ligase

No data available KAPA A-Tailing Enzyme

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Product	: The product contains a substance on REACH Annex XIV at or above 0.1% w/w. Cartridges / rests of product to be dis- posed of as if it was hazardous waste.
	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemi- cal or used container. Send to a licensed waste management company.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste han- dling site for recycling or disposal. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good



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14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

14.7 Maritime transport in bulk according to IMO instruments

:

Remarks	:	Not applicable

SECTION 15: Regulatory information

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

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

Water hazard class (Germa- : WGK 1 slightly hazardous to water ny)

KAPA End-Repair Buffer (10X)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation	:	Not applicable



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(Annex XIV)

The components of this pr	odu	ct are reported in the following inventories:
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.
		Guanosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-, trisodi- um salt 2'-deoxyadenosine 5'-(tetrahydrogen triphosphate) 2'-Deoxycytidine 5'-triphosphate disodium salt Thymidine 5'-#(tetrahydrogen triphosphate)#, sodium salt Adenosine 5#-triphosphate disodium salt hydrate
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable
Labelling (REGULATION (E	EC)	No 1272/2008)
Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H319 Causes serious eye irritation.
Precautionary statements	:	Prevention: P264 Wash skin thoroughly after handling.



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P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention.

Kapa A-Tailing Buffer (10X)

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
Regulation (EC) No 100 plete the ozone layer	5/2009 on	n substances that de-	:	Not applicable
Regulation (EU) 2019/10 tants (recast))21 on pe	ersistent organic pollu-	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals			:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)			:	Not applicable
The components of this product are reported in the following inventories:				
The components of thi	s produc	t are reported in the f	ollo	wing inventories:
The components of thi AIIC	s produc :	t are reported in the f e Not in compliance with		-
•	-	Not in compliance with	n the the	e inventory following components that are not
AIIC	:	Not in compliance with This product contains on the Canadian DSL	the nor	e inventory following components that are not
AIIC	:	Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'-	the nor (tetr	e inventory following components that are not NDSL.
AIIC	:	Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'-	the nor (tetr	e inventory following components that are not NDSL. rahydrogen triphosphate) mpliance with the inventory
AIIC DSL NZIoC	:	Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'- On the inventory, or in	n the nor (tetr i cor	e inventory following components that are not NDSL. rahydrogen triphosphate) mpliance with the inventory e inventory
AIIC DSL NZIOC ENCS	:	Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'- On the inventory, or in Not in compliance with	the nor (tetr cor the	e inventory following components that are not NDSL. rahydrogen triphosphate) mpliance with the inventory e inventory
AIIC DSL NZIOC ENCS ISHL	:	Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'- On the inventory, or in Not in compliance with Not in compliance with	the nor (tetr cor the the the	e inventory following components that are not NDSL. rahydrogen triphosphate) mpliance with the inventory e inventory e inventory e inventory
AIIC DSL NZIOC ENCS ISHL KECI		Not in compliance with This product contains on the Canadian DSL 2'-deoxyadenosine 5'- On the inventory, or in Not in compliance with Not in compliance with Not in compliance with	n the nor (tetr cor n the n the n the	e inventory following components that are not NDSL. rahydrogen triphosphate) mpliance with the inventory e inventory e inventory e inventory e inventory



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TCSI	: On the inve	entory, or in compliance with the inventory

TSCA	:	Product contains substance(s) not listed on TSCA inventory.
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Kapa Ligation Buffer (5X)

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
Regulation (EC) No 1005/200 plete the ozone layer)9 o	n substances that de-	:	Not applicable
Regulation (EU) 2019/1021 o tants (recast)	Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)			Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals			:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)			:	Not applicable
The components of this pro	odua	ct are reported in the fo	ollo	wing inventories:
AIIC	:	Not in compliance with		•
DSL	:	This product contains on the Canadian DSL		following components that are not NDSL.
		Adenosine 5#-triphosp	hat	e disodium salt hydrate
NZIoC	NZIoC : On the inventory, or in			npliance with the inventory
ENCS	:	Not in compliance with	n the	e inventory
ISHL	:	Not in compliance with	n the	e inventory



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KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA PEG/NaCl

REACH - Restrictions on the r the market and use of certain preparations and articles (Anr	dangerous substances,	:	Not applicable
REACH - Candidate List of Su Concern for Authorisation (Art		:	Not applicable
Regulation (EC) No 1005/200 plete the ozone layer	9 on substances that de-	:	Not applicable
Regulation (EU) 2019/1021 or tants (recast)	n persistent organic pollu-	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- : No ment and the Council concerning the export and import of dangerous chemicals			Not applicable
REACH - List of substances subject to authorisation : Not applicable (Annex XIV)			Not applicable
The components of this product are reported in the following inventories:			
AIIC			mpliance with the inventory
DSL	: All components of this	prc	duct are on the Canadian DSL

NZIoC : On the inventory, or in compliance with the inventory



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ENCS	:	On the inventory, or in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA End Repair Enzyme Mix

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).	:	alpha-(4-(1,1,3,3- Tetramethylbutyl)phenyl)-omega- hydroxypoly(oxy-1,2-ethanediyl)
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	alpha-(4-(1,1,3,3- Tetramethylbutyl)phenyl)-omega- hydroxypoly(oxy-1,2-ethanediyl) For customers in the European Eco- nomic Area:, Contains SVHC:, oc- tyl/nonylphenol ethoxylates., For use



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in research and under controlled conditions only, # acc. to Art. 56.3 and 3.23 REACH Regulation.

The components of this product are reported in the following inventories:		
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
		Nucleotidyltransferase, deoxyribonucleate Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-
NZIOC	:	On the inventory, or in compliance with the inventory
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA HiFi HotStart ReadyMix (2X)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that de- plete the ozone layer	:	Not applicable



Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

Other regulations:

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

AIIC :	Not in compliance with the inventory
DSL :	This product contains the following components that are not on the Canadian DSL nor NDSL.
	Guanosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-, trisodi- um salt 2'-deoxyadenosine 5'-(tetrahydrogen triphosphate) Thymidine 5'-#(tetrahydrogen triphosphate)#, sodium salt 2'-Deoxycytidine 5'-triphosphate disodium salt Antibodies dUTP diphosphatase Nucleotidyltransferase, deoxyribonucleate
NZIoC :	On the inventory, or in compliance with the inventory
ENCS :	Not in compliance with the inventory
ISHL :	Not in compliance with the inventory
KECI :	Not in compliance with the inventory
PICCS :	Not in compliance with the inventory
IECSC :	Not in compliance with the inventory
TCSI :	Not in compliance with the inventory
TSCA :	Product contains substance(s) not listed on TSCA inventory.
TECI :	Not in compliance with the inventory



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Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial
		emissions (integrated pollution prevention and control)
		Not applicable

Labelling (REGULATION (EC) No 1272/2008)

:			
:	Warning		
:	H371 May cause damage to organs.		
:	Prevention:		
	P260 Do not breathe mist or vapours.P264 Wash skin thoroughly after handling.P270 Do not eat, drink or smoke when using this product.		
	Response:		
	P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.		
	Storage:		
	P405 Store locked up.		
	Disposal:		
	P501 Dispose of contents/ container to an approved waste disposal plant.		
	:		

Hazardous components which must be listed on the label:

75-57-0 tetramethylammonium chloride

KAPA Library Amplification Primer Premixes (10X)

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
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable



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Regulation (EC) No ment and the Counc of dangerous chemi	il concerning t	•	
REACH - List of sub (Annex XIV)	stances subjec	ct to authorisatior	n : Not applicable
The components o AIIC	-	-	the following inventories: ce with the inventory
DSL		This product contront on the Canadian	ntains the following components that are DSL nor NDSL.
		Primer / Oligonuc	cleotide / Probe
NZIoC	:	On the inventory,	v, or in compliance with the inventory
ENCS	:	Not in compliance	ce with the inventory
ISHL	:	Not in compliance	ce with the inventory
KECI	:	Not in compliance	ce with the inventory
PICCS	:	Not in compliance	ce with the inventory
IECSC	:	Not in compliance	ce with the inventory
TCSI	:	Not in compliance	e with the inventory
TSCA	:	Product contains	s substance(s) not listed on TSCA invent
TECI	:	Not in compliance	ce with the inventory
Volatile organic com	•		5/EU of 24 November 2010 on industria rated pollution prevention and control)

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA Hyper Prep DNA Ligase

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

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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

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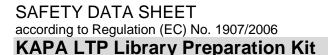
The components of this product are reported in the following inventories:

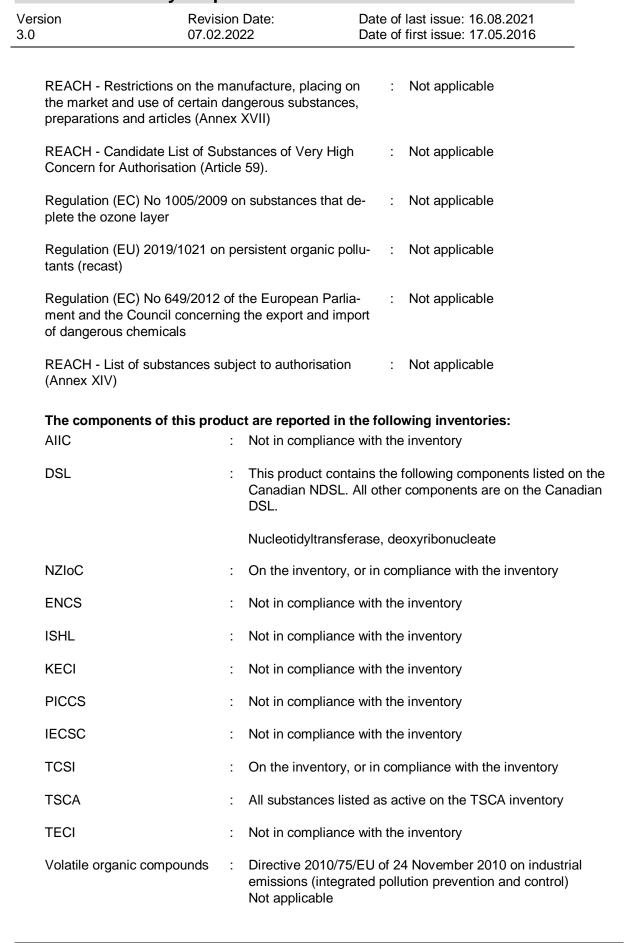
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
		Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA A-Tailing Enzyme





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Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

SECTION 16: Other information

Full text of H-Statements

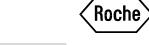
H302 : H311 : H315 : H318 : H370 : H411 :	Fatal if swallowed. Harmful if swallowed. Toxic in contact with skin. Causes skin irritation. Causes serious eye damage. Causes damage to organs. Toxic to aquatic life with long lasting effects.
	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. :	Acute toxicity
Aquatic Chronic :	Long-term (chronic) aquatic hazard
Eye Dam. :	Serious eye damage
Skin Irrit. :	Skin irritation
STOT SE :	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good Laboratory Practice: 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; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet;

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA LTP Library Preparation Kit



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SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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.

DE / EN / 2104