

Varian Paviaian Data:

Version	Revision Date:	Date of last issue: 16.08.2021
2.3	07.02.2022	Date of first issue: 19.05.2016

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

1.1 Product identifier			
Trade name	:	KAPA HTP Library Preparation	on Kit for Illumina Platforms
Product code	:	07961910001	
1.2 Relevant identified uses of t	ine s	substance or mixture and use	es advised against
Recommended restrictions on use	:	For use in research only	
1.3 Details of the supplier of the	e saf	ety data sheet	
Company	:	Roche Diagnostics Deutschla	ind GmbH
		- Sandhoferstrasse 116	
		68305 Mannheim	
		Deutschland	
T - L L		400047500	
Telephone Telefax	:	+496217590 +496217592890	
Responsible Department	:	+49(0)621-759-4223	
E-mail address		info.dia-sds@roche.com	
1.4 Emergency telephone numb			
			. 40(0)004 750 0000
In case of emergencies:	•	Central Works Security Roche Diagnostics GmbH	+49(0)621-759-2203
Centre for detoxification:	:	Mainz	+49(0)6131-19240
		Munich	+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)

Hazard pictograms



Signal word

Warning

:



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Hazard statements	:	H319 Causes serious eye irritation.
Precautionary statements	:	 Prevention: P264 Wash skin thoroughly after handling. 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.

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
Onemicarhame	EC-No.	Classification	(% w/w)
			(70 W/W)
	Index-No.		
	Registration number		
(R*,R*)-1,4-dimercaptobutane-	3483-12-3	Acute Tox. 4; H302	>= 1,0 - < 2,5
2,3-diol	222-468-7	Skin Irrit. 2; H315	
,	01-2120856806-42	Eye Dam. 1; H318	
		Aquatic Chronic 3;	
		H412	
		H412	
		Acute toxicity esti-	
		mate	
		Acute oral toxicity:	
		300,03 mg/kg	
		000,00 mg/kg	

For explanation of abbreviations see section 16.

Kapa A-Tailing Buffer (10X)



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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/NaCl

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

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-	
		mate	
		Acute oral toxicity:	
		500 ma/ka	

For explanation of abbreviations see section 16.



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KAPA Hyper Prep DNA Ligase

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.	Classification	Concentration (% w/w)
Nucleotidyltransferase, deoxyri- bonucleate	Registration number 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.
If 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.



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	Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	 Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	The first aid procedure should be established in consultation
		with the doctor responsible for industrial medicine.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet
5.2 Special hazards arising from	n the	e substance or mixture
Specific hazards during fire- fighting	:	No information available.
5.3 Advice for firefighters		
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if nec- essary.
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment.

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 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 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. Wash hands before breaks and at the end of workday.
7.2	Conditions for safe storage,	incl	uding 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

 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.



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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	tolerance values, there is no risk of harming the unborn child				
	AGW (Inhalable 1.000 mg/m3 DE TRGS fraction) 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 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	nation: When there is	compliance with the OEL ar	nd biological			
	tolerance valu	tolerance values, there is no risk of harming the unborn child					
		AGW (Inhalable 1.000 mg/m3 DE TRGS					
		fraction)	_	900			
	Peak-limit: ex	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	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 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: 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						
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

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)			

8.2 Exposure controls

Engineering measures

No data available

Personal protective equipment

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Eye protection	:	Tightly fitting	ttle with pure water safety goggles nield and protective suit for abnormal processi
		Use eye prot	ection according to EN 166.
Hand protection			
Material Break through time Glove thickness	:	In case of co Nitrile rubber > 30 min > 0,11 mm	ntact through splashing:
Material Break through time Glove thickness	:	In case of fu butyl-rubber > 480 min > 0,4 mm	I contact:
Remarks	:	tions of Reg derived from product men us and for th instructions i which are pr into consider the product i and the cont	I protective gloves have to satisfy the specifical ulation (EU) 2016/425 and the standard EN 37 it. This recommendation is only valid for the tioned in the safety data sheet and provided b e application specified by us. Please observe regarding permeability and breakthrough time ovided by the supplier of the gloves. Also take ration the specific local conditions under which is used, such as the danger of cuts, abrasion, act time. The suitability for a specific workplac scussed with the producers of the protective
Skin and body protectio	n :		lothing / protection according to the amount and con- the dangerous substance at the work place.

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Roche

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	:	No data available



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flammability limit				
Lower explosion flammability limit	limit / Lower :	:	No data available)
Flash point	:	: (does not flash	
Auto-ignition tem	perature :	:	No data available)
Decomposition te	emperature :	:	No data available)
рН	:		7,5	
Viscosity Viscosity, dyn	amic :	:	No data available)
Viscosity, kine	ematic :	:	No data available)
Solubility(ies) Water solubili	ty :	: (completely miscil	ble
Solubility in of	ther solvents :	:	No data available)
Partition coefficie octanol/water	ent: n- :	:	No data available)
Vapour pressure	:	:	No data available)
Relative density	:	:	No data available)
Density	:		1,04 g/cm3	
Relative vapour of	density :	:	No data available	9

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



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Flash point		does not flash
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
рН	:	8,0
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	:	1,040 g/cm3
Relative vapour density	:	No data available

Kapa Ligation Buffer (5X)

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



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:	No data available
:	7,6
:	No data available
:	1,040 g/cm3
:	No data available

KAPA PEG/NaCl

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	:	8,1



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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	:	1,120 g/cm3
Relative vapour density	:	No data available

KAPA End Repair Enzyme Mix

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	:	6,0
Viscosity Viscosity, dynamic	:	No data available

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

KAPA Hyper Prep DNA Ligase

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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	:	6,5
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	completely miscible

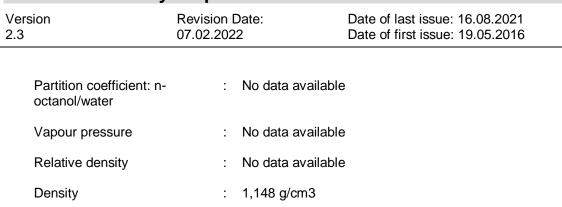


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Solubility in other solvents	:	No data available
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	1,148 g/cm3
Relative vapour density	:	No data available

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
Flash point Auto-ignition temperature	:	does not flash No data available
·	:	
Auto-ignition temperature	-	No data available
Auto-ignition temperature Decomposition temperature	-	No data available No data available
Auto-ignition temperature Decomposition temperature pH Viscosity	-	No data available No data available 6,0
Auto-ignition temperature Decomposition temperature pH Viscosity Viscosity, dynamic	:	No data available No data available 6,0 No data available



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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

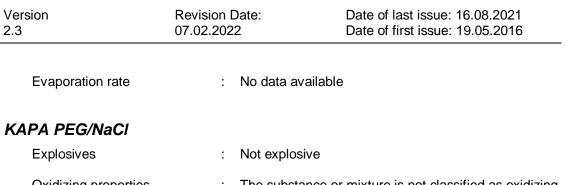
Kapa A-Tailing Buffer (10X)

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.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

Kapa Ligation Buffer (5X)

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

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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 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 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.



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		The product is not flammable.
Self-ignition	:	Not applicable
Evaporation rate	:	No data available

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 dangerous reaction known under conditions of normal use.

No decomposition if stored and applied as directed.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Materials to avoid : Strong 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



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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 Exposure time Method Result GLP	:	human keratinocytes 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



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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 Metabolic activation: with and without metabolic activation Method: Mutagenicity (Salmonella typhimurium - reverse mu- tation assay) Result: negative GLP: yes
	Test Type: Microbial mutagenesis assay (Ames test)

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



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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 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/NaCl



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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 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



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Components:

alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl): Result Risk of serious damage to eyes. 1 May cause irreversible eye damage. Remarks

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 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



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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.

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

Not classified based on available information.

Components:

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

Assessment : 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



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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.

Components:

Nucleotidyltransferase, deoxyribonucleate:

•

Assessment

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

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.

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 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



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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 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 Hyper Prep DNA Ligase

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



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(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 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 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 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



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> 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/NaCl

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	:	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/NaCl

No data available KAPA End Repair Enzyme Mix

Components:

alpha-(4-(1,1,3,3-Tetramethylb	utyl)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 Hyper Prep DNA Ligase

No data available KAPA A-Tailing Enzyme

No data available



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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 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

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Kapa Ligation Buffer (5X)

No data available **KAPA PEG/NaCI**

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No data available KAPA End Repair Enzyme Mix

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

Not relevant KAPA End Repair Enzyme Mix

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.

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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)



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Assessment	ered to hav REACH Arti (EU) 2017/2	nce/mixture does not contain components conside e endocrine disrupting properties according to cle 57(f) or Commission Delegated regulation 2100 or Commission Regulation (EU) 2018/605 a % or higher.
Kapa Ligation Buffer	(5X)	
Assessment	ered to hav REACH Arti (EU) 2017/2	nce/mixture does not contain components consid e endocrine disrupting properties according to cle 57(f) or Commission Delegated regulation 2100 or Commission Regulation (EU) 2018/605 a % or higher.
KAPA PEG/NaCl		
Assessment	ered to hav REACH Arti (EU) 2017/2	nce/mixture does not contain components conside e endocrine disrupting properties according to cle 57(f) or Commission Delegated regulation 2100 or Commission Regulation (EU) 2018/605 a % or higher.
KAPA End Repair En	zyme Mix	
Assessment	have endoc ing to REAC	nce/mixture contains components considered to rine disrupting properties for environment , acco CH Article 57(f), Commission Regulation (EU) Commission Delegated Regulation (EU)
Components:		
alpha-(4-(1,1,3,3-Tetr	amethylbutyl)phenyl)-o	omega-hydroxypoly(oxy-1,2-ethanediyl):
Assessment		nce is considered to have endocrine disrupting ccording to REACH Article 57(f) for the environ-
KAPA Hyper Prep DN	IA Ligase	
Product:		
Assessment	ered to hav REACH Arti (EU) 2017/2	nce/mixture does not contain components consid e endocrine disrupting properties according to cle 57(f) or Commission Delegated regulation 2100 or Commission Regulation (EU) 2018/605 a % or higher.
KAPA A-Tailing Enzy	vme	
Assessment	ered to hav REACH Arti (EU) 2017/2	ace/mixture does not contain components conside e endocrine disrupting properties according to cle 57(f) or Commission Delegated regulation 2100 or Commission Regulation (EU) 2018/605 a % or higher.



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12.7 Other adverse effects 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/NaCI

No data available KAPA End Repair Enzyme Mix

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 or above 0.1% w/w. Cartridges / re posed of as if it was hazardous wa	sts of product to be dis-
	The product should not be allowed courses or the soil. Do not contaminate ponds, waterw cal or used container. Send to a licensed waste manager	ays or ditches with chemi-
Contaminated packaging	Empty remaining contents. Dispose of as unused product. Empty containers should be taken dling site for recycling or disposal. Do not re-use empty containers.	to an approved waste han-

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

14.3 Transport hazard class(es)

Not regulated as a dangerous good



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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

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 (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 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 (EC) No 1272/2008)

Hazard pictograms	:	(!	
Signal word	:	Warning)
Hazard statements	:	H319	Causes serious eye irritation.
Precautionary statements	:		Wash skin thoroughly after handling. Wear eye protection/ face protection.



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P305 + P351 + P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and
easy to do. Continue rinsing.P337 + P313If 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 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

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.
		2'-deoxyadenosine 5'-(tetrahydrogen triphosphate)
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

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TSCA	: Product cont	ains substance(s) not listed on TSCA inventory.			
TECI	: Not in compli	ance with the inventory			
Volatile organic compou		0/75/EU of 24 November 2010 on industrial tegrated pollution prevention and control) e			

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Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Kapa Ligation Buffer (5X)

Version

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 Subs Concern for Authorisation (Articl	, ,	:	Not applicable	
Regulation (EC) No 1005/2009 of plete the ozone layer	on substances that de-	:	Not applicable	
Regulation (EU) 2019/1021 on p tants (recast)	persistent 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:				
AIIC :	Not in compliance with		•	
DSL :	This product contains the following components that are not on the Canadian DSL nor NDSL.			
	Adenosine 5'-triphosp	hate	e 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	Not in compliance with the inventory		

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PICCS	: Not in comp	liance with the inventory
IECSC	: Not in comp	liance with the inventory
TCSI	: On the inver	ntory, or in compliance with the inventory
TSCA	: Product con	tains substance(s) not listed on TSCA inventory.
TECI	: Not in comp	liance with the inventory
Volatile organic compou		10/75/EU of 24 November 2010 on industrial ntegrated pollution prevention and control) ble

Roche

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA PEG/NaCl

ENCS

REACH - Restrictions on the n the market and use of certain of preparations and articles (Ann	: Not applicable		
REACH - Candidate List of Su Concern for Authorisation (Arti	: Not applicable		
Regulation (EC) No 1005/2009 plete the ozone layer	9 on substances that de-	: Not applicable	
Regulation (EU) 2019/1021 on tants (recast)	persistent organic pollu-	: Not applicable	
Regulation (EC) No 649/2012 of the European Parlia- : Not applicable ment and the Council concerning the export and import of dangerous chemicals			
REACH - List of substances su (Annex XIV)	ubject to authorisation	: Not applicable	
The components of this proc	duct are reported in the fo	ollowing inventories:	
AIIC	-	compliance with the inventory	
DSL	: All components of this	product are on the Canadian DSL	
NZIoC	: On the inventory, or in	compliance with the inventory	

: On the inventory, or in compliance with the inventory

Roche

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ISHL	: On the inventor	ory, or in compliance with the inventory
KECI	: On the invente	ory, or in compliance with the inventory
PICCS	: On the inventor	ory, or in compliance with the inventory
IECSC	: On the inventor	ory, or in compliance with the inventory
TCSI	: On the invent	ory, or in compliance with the inventory
TSCA	: All substances	s listed as active on the TSCA inventory
TECI	: Not in complia	ance with the inventory
Volatile organic compour		0/75/EU of 24 November 2010 on industria egrated pollution prevention and control)

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



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



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tants (recast)			
Regulation (EC) No 649/2012 of the European Parlia- : Not applicable ment and the Council concerning the export and import of dangerous chemicals			
REACH - List of substances subject to authorisation : Not applicable (Annex XIV)			
The components of this product are reported in the following inventories:			
AIIC	: Not in comp	iance with the inventory	
DSL	•	contains the following components listed on the DSL. All other components are on the Canadian	
	Kinase (pho	sphorylating), polynucleotide 3' / 5'-Hydroxyl-	
NZIoC	: On the inver	tory, or in compliance with the inventory	
ENCS	: Not in comp	iance with the inventory	
ISHL	: Not in comp	iance with the inventory	
KECI	: Not in comp	iance with the inventory	
PICCS	: Not in comp	iance with the inventory	
IECSC	: Not in comp	iance with the inventory	
TCSI	: On the inver	ntory, or in compliance with the inventory	
TSCA	: All substanc	es listed as active on the TSCA 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

: Not in compliance with the inventory

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA A-Tailing Enzyme

TECI

REACH - Restrictions on the manufacture, placing on	:	Not applicable
the market and use of certain dangerous substances,		
preparations and articles (Annex XVII)		

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REACH - Candidate List of Sul Concern for Authorisation (Arti	ostances of Very High : Not applicable cle 59).		
Regulation (EC) No 1005/2009 plete the ozone layer	on substances that de- : Not applicable		
Regulation (EU) 2019/1021 on tants (recast)	persistent organic pollu- : Not applicable		
Regulation (EC) No 649/2012 ment and the Council concerni of dangerous chemicals			
REACH - List of substances su (Annex XIV)	bject to authorisation : Not applicable		
The components of this proc	luct are reported in the following inventories:		
AIIC	: Not in compliance with the inventory		
DSL	: This product contains the following components listed on Canadian NDSL. All other components are on the Canadi DSL.		
	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	: 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 Not a hazardous substance or	-		



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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	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	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

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; 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





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