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

1.1	Product identifier			
	Trade name	:	KAPA HyperPlus Kit	
	Product code	:	07962428001	
1.2	Relevant identified uses of the	ne s	ubstance or mixture and use	es advised against
	Recommended restrictions on use	:	For professional users only.	
1.3	Details of the supplier of the			
	Company	:	Roche Diagnostics Deutschla	nd GmbH
			- Sandhoferstrasse 116 68305 Mannheim Deutschland	
	Telephone	:	+496217590	
	Telefax		+496217592890	
	Responsible Department		+49(0)621-759-4223	
	E-mail address	:	info.dia-sds@roche.com	
1.4	Emergency telephone number	er		
	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**

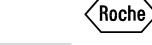
### 2.1 Classification of the substance or mixture

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		<ul><li>H319 Causes serious eye irritation.</li><li>H371 May cause damage to organs.</li></ul>
Precautionary statements	•	Prevention:P260Do not breathe mist or vapours.P264Wash skin thoroughly after handling.P280Wear eye protection/ face protection.
		Response: P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor. P337 + P313 If eye irritation persists: Get medical advice/ attention.
		<b>Disposal:</b> P501 Dispose of contents/ container to an approved waste disposal plant.

# 2.3 Other hazards

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

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

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

# KAPA Hyper Prep End Repair and A-Tailing Buffer

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

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

# Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
(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- mate Acute oral toxicity: 300,03 mg/kg	>= 1,0 - < 2,5

# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA HyperPlus Kit

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hydrogen chloride	7647-01-0 231-595-7 017-002-01-X	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) 	= 1,0 - < 3,0

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For explanation of abbreviations see section 16.

# KAPA Hyper Prep Ligation Buffer

# 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 HiFi HotStart ReadyMix (2X)

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

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

# 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	>= 1,0 - < 2,5



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		mg/kg Acute dermal toxicity: 200,02 mg/kg	
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 End Repair & A-Tailing Enzyme Mix

# 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)
Taq DNA Polymerase	123340-12-5	Acute toxicity esti- mate Acute oral toxicity: > 5.001 mg/kg Acute inhalation tox- icity (dust/mist): > 30 mg/l Acute dermal toxicity: > 5.001 mg/kg	< 0,1

For explanation of abbreviations see section 16.

# 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)





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	Index-No. Registration number		
Kinase (phosphorylating), polynu- cleotide 3' / 5'-Hydroxyl-	37211-65-7 253-400-4	Not classified	>= 0,1 - < 1,0

For explanation of abbreviations see section 16.

# KAPA Frag Enzyme (5X)

# 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		
Nucleotidyltransferase, deoxyri-	9012-90-2	Not classified	< 0,1
bonucleate	232-741-2		
Nuclease, deoxyribo-	9003-98-9	Resp. Sens. 1; H334	< 0,1
	232-667-0	Skin Sens. 1; H317	

For explanation of abbreviations see section 16.

# KAPA Frag Conditioning Solution

# 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 Frag 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 HyperPlus ER&AT Enzyme Mix

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

Not a hazardous substance or mixture.



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# Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Taq DNA Polymerase	123340-12-5	Acute toxicity esti- mate Acute oral toxicity: > 5.001 mg/kg Acute inhalation tox- icity (dust/mist): > 30 mg/l Acute dermal toxicity: > 5.001 mg/kg	< 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. 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. Take victim immediately to hospital. Rinse mouth with water.



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# 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 Specific hazards during fire- fighting		
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 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.

# 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.
		Reep in suitable, closed containers for disposal.

# 6.4 Reference to other sections

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



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# **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. Wash hands before breaks and at the end of workday.
2 Conditions for safe storage, including any incompatibilities		

# 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)	: Laboratory chemicals
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# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

# KAPA Hyper Prep End Repair and A-Tailing Buffer

# **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
hydrogen chloride	7647-01-0	TWA	5 ppm 8 mg/m3	2000/39/EC	
	Further information: Indicative				
		STEL	10 ppm 15 mg/m3	2000/39/EC	
	Further information: Indicative				

# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA HyperPlus Kit

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	AGW	2 ppm 3 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			

Roche

# KAPA Hyper Prep Ligation Buffer

# **Occupational Exposure Limits**

		r		
Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)	·	
Polyethylenglycol	25322-68-3	AGW (Inhalable	1.000 mg/m3	DE TRGS
6000	20022 00 0	fraction)	1.000 mg/mo	900
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)	
	Further inform	nation: When there is	compliance with the OEL ar	nd biological
	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 inform	nation: When there is	compliance with the OEL ar	nd biological
	tolerance valu	ies, there is no risk c	f harming the unborn child	
		AGW (Inhalable	200 mg/m3	DE TRGS
		fraction)	-	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 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: ex	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 End Repair & A-Tailing Enzyme Mix

# **Occupational Exposure Limits**

Components CAS-No. Value type (Form	Control parameters	Basis
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# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA HyperPlus Kit



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		of exposure)				
glycerol	56-81-5	AGW (Inhalable	200 mg/m3	DE TRGS		
		fraction)	_	900		
	Peak-limit: ex	Peak-limit: excursion factor (category): 2;(I)				
	Further inform	Further information: When there is compliance with the OEL and biological				
	tolerance value	ues, there is no risk o	of harming the unborn child	-		
Taq DNA Poly-	123340-12-	IOEL	0,00006 mg/m3	Roche Indus-		
merase	5		_	trial Hygiene		
				Committee		
				(RIHC)		

# 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	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 Frag Enzyme (5X)

# **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;(I)	
			compliance with the OEL ar f harming the unborn child	nd biological
Nucleotidyltrans- ferase, deoxyribo- nucleate	9012-90-2	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)
Nuclease, deoxyri- bo-	9003-98-9	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)

# KAPA Frag Conditioning Solution

Contains no substances with occupational exposure limit values.

# KAPA Frag Buffer (10X)



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Contains no substances with occupational exposure limit values.

# KAPA HyperPlus ER&AT Enzyme Mix

# **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	Peak-limit: excursion factor (category): 2;(I)				
	Further inforn	Further information: When there is compliance with the OEL and biological				
	tolerance valu	tolerance values, there is no risk of harming the unborn child				
Taq DNA Poly-	123340-12-	IOEL	0,00006 mg/m3	Roche Indus-		
merase	5			trial Hygiene		
				Committee		
				(RIHC)		

### 8.2 Exposure controls

Engineering measures No data available		
Personal protective equip	nent	
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal proc problems.	essing
	Use eye protection according to EN 166.	
Hand protection		
Material	In case of contact through splashing: Nitrile rubber	
Break through time	$\sim$ 30 min	
Glove thickness	: > 0,11 mm	
	In case of full contact:	
Material	: butyl-rubber	
Break through time Glove thickness	: > 480 min : > 0,4 mm	
Remarks	: The selected protective gloves have to satisfy the spections of Regulation (EU) 2016/425 and the standard E derived from it. This recommendation is only valid for product mentioned in the safety data sheet and provid us and for the application specified by us. Please obsections regarding permeability and breakthrough the which are provided by the supplier of the gloves. Also into consideration the specific local conditions under w the product is used, such as the danger of cuts, abras and the contact time. The suitability for a specific work should be discussed with the producers of the protecting gloves.	N 374 the led by erve the time take vhich ion, cplace



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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.

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

# 9.1 Information on basic physical and chemical properties *KAPA Hyper Prep End Repair and A-Tailing Buffer*

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	:	7,9
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



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Relative density	:	No data available
Density	:	1,045 g/cm3
Relative vapour density	:	No data available

# KAPA Hyper Prep Ligation Buffer

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
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, dynamic Viscosity, kinematic	:	No data available No data available
	-	
Viscosity, kinematic Solubility(ies)	:	No data available
Viscosity, kinematic Solubility(ies) Water solubility	:	No data available completely miscible
Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n-	:	No data available completely miscible No data available
Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water	:	No data available completely miscible No data available No data available
Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water Vapour pressure	:	No data available completely miscible No data available No data available



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Relative vapour density : No data available

# 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
Flammability	:	Does not sustain combustion.
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	:	8,7
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	:	1,044 g/cm3
Relative vapour density	:	No data available



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# 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.
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	:	7,7
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	:	0,996 g/cm3
Relative vapour density	:	No data available



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# KAPA Hyper Prep End Repair & A-Tailing 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
Flammability	:	Does not sustain combustion.
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	:	6,8
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	:	1,148 g/cm3
Relative vapour density	:	No data available

# KAPA Hyper Prep DNA Ligase

Physical state



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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
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 Frag Enzyme (5X)

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

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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	:	7,8
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	:	1,090 g/cm3
Relative vapour density	:	No data available

# KAPA Frag Conditioning Solution

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

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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	:	9,0
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	:	0,990 g/cm3
Relative vapour density	:	No data available

Revision Date:

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# KAPA Frag 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
Flammability	:	Does not sustain combustion.

Version

3.0



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Date of first issue: 17.05.2016

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	:	8,3
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	:	0,998 g/cm3
Relative vapour density	:	No data available

**Revision Date:** 

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# KAPA HyperPlus ER&AT 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
Flammability	:	Does not sustain combustion.
Upper explosion limit / Upper	:	No data available



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flammability limit			
Lower explosion limit / flammability limit	Lower : N	o data available	
Flash point	d	oes not flash	
Auto-ignition temperate	ure : N	o data available	
Decomposition temper	ature : N	o data available	
рН	: C	a. 5,5	
Viscosity Viscosity, dynamic	: N	o data available	
Viscosity, kinematic	: : N	o data available	
Solubility(ies) Water solubility	: C	ompletely miscib	le
Solubility in other so	olvents : N	o data available	
Partition coefficient: n- octanol/water	: N	o data available	
Vapour pressure	: N	o data available	
Relative density	: N	o data available	
Density	: C	a. 1,15 g/cm3	
Relative vapour densit	y : N	o data available	

# 9.2 Other information

# KAPA Hyper Prep End Repair and A-Tailing Buffer

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

# KAPA Hyper Prep Ligation Buffer

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 HiFi HotStart ReadyMix (2X)

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 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 End Repair & A-Tailing Enzyme Mix

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.



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Flammability (liquids)	: Does not sustain combustion.
	The product is not flammable.
Self-ignition	: Not applicable
Evaporation rate	: No data available

# KAPA Frag Enzyme (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
Evaporation rate	:	No data available

# KAPA Frag Conditioning Solution

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 Frag Buffer (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 HyperPlus ER&AT Enzyme Mix



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	Explosives	:	No data available	
	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	

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# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Version

No dangerous reaction known under conditions of normal use.

Revision Date:

### 10.2 Chemical stability

Stable under normal conditions.

# 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

#### 10.4 Conditions to avoid

No data available

### **10.5 Incompatible materials** No data available

# 10.6 Hazardous decomposition products

No data available

# **SECTION 11: Toxicological information**

# 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 *KAPA Hyper Prep End Repair and A-Tailing Buffer*

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	:	human keratinocytes 4 h		
Method	:	OECD Test Guideline 431		
Result	:	Irritating to skin.		
GLP	:	yes		
Species	:	reconstructed human epidermis (RhE)		
Exposure time	:	60 min		
Method	:	OECD Test Guideline 439		
Result	:	Irritating to skin.		
GLP	:	yes		
hydrogen chloride:				
Result	:	Causes burns.		
Continue and demonstration				
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

# hydrogen chloride:

Result

: Risk of serious damage to eyes.

# Respiratory or skin sensitisation

# Skin sensitisation

Not classified based on available information.

### **Respiratory sensitisation**



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### **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 Metabolic activation: with and without metabolic activation Method: Mutagenicity (Salmonella typhimurium - reverse mu- tation assay) Result: negative GLP: yes
		Test Turner Misrobiel mutagenesis append (Amos 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.

### **Components:**

### hydrogen chloride:

Assessment

: May cause respiratory irritation.

#### **STOT - repeated exposure**

Not classified based on available information.

# Aspiration toxicity

Not classified based on available information. *KAPA Hyper Prep Ligation Buffer* 

#### Acute toxicity



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# 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 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



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### **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
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	:	est Type: Microbial mutagenesis assay (Ames test) est 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.



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#### Components:

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

:

:

#### 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.

#### 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



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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 Hyper Prep End Repair & A-Tailing Enzyme Mix

# Acute toxicity

Not classified based on available information.

### **Components:**

# Taq DNA Polymerase:

Acute oral toxicity	:	Acute toxicity estimate: > 5.001 mg/kg Method: Expert judgement
Acute inhalation toxicity	:	Acute toxicity estimate: > 30 mg/l Test atmosphere: dust/mist Method: Expert judgement
Acute dermal toxicity	:	Acute toxicity estimate: > 5.001 mg/kg Method: Expert judgement

#### 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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### **Reproductive toxicity**

Not classified based on available information.

### STOT - single exposure

Not classified based on available information.

#### **Components:**

#### Taq DNA Polymerase:

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:**

#### Taq DNA Polymerase:

Assessment

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

# 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 1 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-: •

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 Frag Enzyme (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.

### **Components:**

#### Nuclease, deoxyribo-:

Assessment	:	May cause sensitisation by inhalation.
Assessment	:	May cause sensitisation by skin contact.



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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

# KAPA Frag Conditioning Solution

#### 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



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# 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 Frag 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

Not classified based on available information.

# **STOT - repeated exposure**

Not classified based on available information.

# Aspiration toxicity

Not classified based on available information.

# KAPA HyperPlus ER&AT Enzyme Mix

Acute toxicity Not classified based on available information.

# Components:

Taq DNA Polymerase:



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Acute oral toxicity		ity estimate: > 5.001 mg/kg kpert judgement	
Acute inhalation toxicit	Test atmos	Acute toxicity estimate: > 30 mg/l Test atmosphere: dust/mist Method: Expert judgement	
Acute dermal toxicity		ity estimate: > 5.001 mg/kg kpert judgement	
Skin corrosion/irritati			
Not classified based or	n available information.		
Serious eye damage/	•		
Not classified based or			
Respiratory or skin s	ensitisation		
Skin sensitisation			
Not classified based or	n available information.		
Respiratory sensitisa	tion		
Not classified based or	n available information.		
Germ cell mutagenic	ty		
Not classified based or	n available information.		
Carcinogenicity			
Not classified based or	n available information.		
Reproductive toxicity			
Not classified based or	n available information.		
STOT - single exposu			
Not classified based or	n available information.		
Components:			
Taq DNA Polymerase	:		
Assessment	: The substa organ toxic	nce or mixture is not classified as specific tar ant, single exposure.	
STOT - repeated expo	osure		
Not classified based or			
Components:			
Taq DNA Polymerase			
Assessment	: The substa	nce or mixture is not classified as specific tar ant, repeated exposure.	



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#### 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 Hyper Prep End Repair and A-Tailing Buffer

# 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 Ligation Buffer

# **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)



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### 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 End Repair & A-Tailing 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 (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Enzyme (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 Frag Conditioning Solution

### **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 Frag Buffer (10X)



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### 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 HyperPlus ER&AT 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.

### **SECTION 12: Ecological information**

### 12.1 Toxicity KAPA Hyper Prep End Repair and A-Tailing Buffer

### 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



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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

### hydrogen chloride:

Ecotoxicology Assessment		
Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

### KAPA Hyper Prep Ligation Buffer

### No data available

### KAPA HiFi HotStart ReadyMix (2X)

### Components:

### tetramethylammonium chloride:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 462 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,16 mg/l Exposure time: 11 d GLP: yes
		NOEC (Daphnia magna (Water flea)): 0,03 mg/l Exposure time: 11 d GLP: yes
		LC50 (Daphnia magna (Water flea)): 1,86 mg/l Exposure time: 48 h GLP: yes
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 115 mg/l



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Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes

### **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

### 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 End Repair & A-Tailing Enzyme Mix

### Components:

<b>Taq DNA Polymerase:</b> Toxicity to fish	:	LC50 : > 100 mg/l Exposure time: 96 h
Ecotoxicology Assessment Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	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



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### KAPA Frag Enzyme (5X)

### **Components:**

Nucleotidyltransferase, deoxyribonucleate:

### **Ecotoxicology Assessment**

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

Other organisms relevant to : No data available the environment

### Nuclease, deoxyribo-:

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

the environment

### KAPA Frag Conditioning Solution

### No data available KAPA Frag Buffer (10X)

No data available KAPA HyperPlus ER&AT Enzyme Mix

### Components:

### Taq DNA Polymerase:

Toxicity to fish	: LC50 : > 100 mg/l
	Exposure time: 96 h

### Ecotoxicology Assessment

Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

### 12.2 Persistence and degradability KAPA Hyper Prep End Repair and A-Tailing Buffer

### Components:

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

Biodegradability	: Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 64,3 mg/l
	Concentration. 04,0 mg/r



### **KAPA HyperPlus Kit**

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		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

ity

KAPA Hyper Prep Ligation Buffer

### No data available KAPA HiFi HotStart ReadyMix (2X)

### **Components:**

tetramethylammonium chloride: Biodegradability : Remarks: Expected to be biodegradable

### KAPA Library Amplification Primer Premixes (10X)

No data available KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

No data available KAPA Hyper Prep DNA Ligase

No data available KAPA Frag Enzyme (5X)

No data available KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

### No data available KAPA HyperPlus ER&AT Enzyme Mix

No data available

### 12.3 Bioaccumulative potential KAPA Hyper Prep End Repair and A-Tailing Buffer

### Components:

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

Partition coefficient: n-	:	log Pow: 0,07 (25 °C)
octanol/water		pH: 5,0
		Method: OECD Test Guideline 117
		GLP: yes

### hydrogen chloride:

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



### **KAPA HyperPlus Kit**

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### KAPA Hyper Prep Ligation Buffer

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)

No data available

### KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

### **Components:**

### Taq DNA Polymerase:

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

### KAPA Hyper Prep DNA Ligase

### **Components:**

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

### KAPA Frag Enzyme (5X)

### Components:

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

### Nuclease, deoxyribo-:

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

### KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

No data available



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### KAPA HyperPlus ER&AT Enzyme Mix

### **Components:**

Taq DNA Polymerase:

Partition coefficient: n-octanol/water

: Remarks: No data available

### 12.4 Mobility in soil

### KAPA Hyper Prep End Repair and A-Tailing Buffer

No data available

KAPA Hyper Prep Ligation Buffer

No data available KAPA HiFi HotStart ReadyMix (2X)

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

No data available KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

No data available KAPA Hyper Prep DNA Ligase

No data available KAPA Frag Enzyme (5X)

No data available KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

No data available

### KAPA HyperPlus ER&AT Enzyme Mix

No data available

12.5 Results of PBT and vPvB assessment

KAPA Hyper Prep End Repair and A-Tailing Buffer

Not relevant KAPA Hyper Prep Ligation Buffer

Not relevant KAPA HiFi HotStart ReadyMix (2X)

Not relevant

KAPA Library Amplification Primer Premixes (10X)

Not relevant

KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

Not relevant KAPA Hyper Prep DNA Ligase

Not relevant

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### KAPA Frag Enzyme (5X)

Not relevant KAPA Frag Conditioning Solution

Not relevant KAPA Frag Buffer (10X)

Not relevant

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### KAPA HyperPlus ER&AT Enzyme Mix

Not relevant

### **12.6 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.

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### KAPA Hyper Prep End Repair and A-Tailing Buffer

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Product:
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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 Ligation Buffer

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 HiFi HotStart ReadyMix (2X)

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)

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.
	levels of 0.1% of higher.

### KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix



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Assessment	ered to have REACH Arti (EU) 2017/2	The substance/mixture does not contain components cons 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 levels of 0.1% or higher.			
KAPA Hyper Prep DNA Ligase					
Assessment	ered to have 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 at % or higher.			
KAPA Frag Enzyme	e (5X)				
Assessment	ered to have 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 at % or higher.			
KAPA Frag Conditi	oning Solution				
Assessment	ered to have 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 at % or higher.			
KAPA Frag Buffer (	(10X)				
Assessment	ered to have 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 at % or higher.			
KAPA HyperPlus E	R&AT Enzyme Mix				
Assessment	ered to have 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 at % or higher.			
12.7 Other adverse effe	cts				
	End Repair and A-Tai	iling Buffer			
No data available					

# No data available *KAPA Hyper Prep Ligation Buffer*

No data available KAPA HiFi HotStart ReadyMix (2X)

No data available



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### KAPA Library Amplification Primer Premixes (10X)

No data available KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

No data available KAPA Hyper Prep DNA Ligase

No data available

KAPA Frag Enzyme (5X)

No data available

KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

### No data available KAPA HyperPlus ER&AT Enzyme Mix

No data available

### **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Product	:	Do not contaminate ponds, waterways or ditches with chemi- cal or used container. Send to a licensed waste management company. Can be disposed as waste water, when in compliance with local regulations.
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

### 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



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### 14.6 Special precautions for user

R	em	ar	kc	
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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

2

Remarks

: Not applicable

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

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major- accident hazards involving dangerous substances.	:	Not applicable
Water hazard class (Germa-	:	WGK 1 slightly hazardous to w

ny)

## water

### KAPA Hyper Prep End Repair and A-Tailing Buffer

REACH - Restrictions on the m the market and use of certain d preparations and articles (Anne	angerous substances,	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Candidate List of Sub Concern for Authorisation (Artic	, ,	:	Not applicable
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 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 prod	uct are reported in the fo	ollov	wing inventories:
AIIC	: Not in compliance with	the	inventory
DSL : This product contains the following components that are r on the Canadian DSL nor NDSL.			



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	Adenosine 5#-t Guanosine 5'-(t um salt 2'-Deoxycytidin	sine 5'-(tetrahydrogen triphosphate) riphosphate disodium salt hydrate etrahydrogen triphosphate), 2'-deoxy-, trisodi- e 5'-triphosphate disodium salt (tetrahydrogen triphosphate)#, sodium salt
NZIoC	: On the inventor	ry, or in compliance with the inventory
ENCS	: Not in compliar	nce with the inventory
ISHL	: Not in compliar	nce with the inventory
KECI	: Not in compliar	nce with the inventory
PICCS	: Not in compliar	nce with the inventory
IECSC	: Not in compliar	ace with the inventory
TCSI	: Not in compliar	ace with the inventory
TSCA	: Product contair	ns substance(s) not listed on TSCA inventory.
TECI	: Not in compliar	ace with the inventory
Volatile organic compoun		75/EU of 24 November 2010 on industrial grated pollution prevention and control)

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

Hazard pictograms :	
Signal word :	Warning
Hazard statements :	H319 Causes serious eye irritation.
Precautionary statements :	<ul><li>Prevention:</li><li>P264 Wash skin thoroughly after handling.</li><li>P280 Wear eye protection/ face protection.</li></ul>
	Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with wa- ter for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention.



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### KAPA Hyper Prep Ligation Buffer

	he manufacture, placing on : Not applicable ain dangerous substances, Annex XVII)	
REACH - Candidate List of Concern for Authorisation	f Substances of Very High : Not applicable (Article 59).	
Regulation (EC) No 1005/ plete the ozone layer	2009 on substances that de- : Not applicable	
Regulation (EU) 2019/102 tants (recast)	1 on persistent organic pollu- : Not applicable	
<b>–</b> ( )	012 of the European Parlia- : Not applicable cerning the export and import	
REACH - List of substanc (Annex XIV)	es subject to authorisation : 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.	
DSL		
DSL NZIoC	on the Canadian DSL nor NDSL.	
	on the Canadian DSL nor NDSL. Adenosine 5#-triphosphate disodium salt hydrate	
NZIoC	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>: On the inventory, or in compliance with the inventory</li> </ul>	
NZIoC ENCS	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> </ul>	
NZIoC ENCS ISHL	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> <li>Not in compliance with the inventory</li> </ul>	
NZIoC ENCS ISHL KECI	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> </ul>	
NZIOC ENCS ISHL KECI PICCS	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> </ul>	
NZIOC ENCS ISHL KECI PICCS IECSC	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> </ul>	
NZIOC ENCS ISHL KECI PICCS IECSC TCSI	<ul> <li>on the Canadian DSL nor NDSL.</li> <li>Adenosine 5#-triphosphate disodium salt hydrate</li> <li>On the inventory, or in compliance with the inventory</li> <li>Not in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> </ul>	

Volatile organic compounds

:

Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control)

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# 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 following entries should be considered: Number on list 3 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 : Not applicable (Annex XIV)

### 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 prod AIIC	<b>ict are reported in the following inventories:</b> 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

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NZIoC	: On the inve	ntory, or in compliance with the inventory
ENCS	: Not in comp	liance with the inventory
ISHL	: Not in comp	liance with the inventory
KECI	: Not in comp	liance with the inventory
PICCS	: Not in comp	liance with the inventory
IECSC	: Not in comp	liance with the inventory
TCSI	: Not in comp	liance 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

Date of last issue: 16.08.2021

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

Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H371 May cause damage to organs.
Precautionary statements	:	Prevention:P260Do not breathe mist or vapours.P264Wash skin thoroughly after handling.P270Do 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

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### **KAPA HyperPlus Kit**

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### 

### 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
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.
		Primer / Oligonucleotide / Probe
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



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emissions (integrated pollution prevention and control) Not applicable

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

Not a hazardous substance or mixture.

### KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

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: Detergent N (Number on list 46b, 46a.)
REACH - Candidate List of Su Concern for Authorisation (Art			:	Not applicable
Regulation (EC) No 1005/2009 plete the ozone layer	9 on	substances that de-	:	Not applicable
Regulation (EU) 2019/1021 or tants (recast)	n pe	rsistent organic pollu-	:	Not applicable
Regulation (EC) No 649/2012 ment and the Council concern of dangerous chemicals			:	Not applicable
REACH - List of substances se (Annex XIV)	ubje	ect to authorisation	:	Not applicable
The components of this pro-	duc	t are reported in the fo	ollov	wing inventories:
AIIC	:	Not in compliance with	the	inventory
DSL	:	This product contains to on the Canadian DSL r		ollowing components that are not NDSL.
		Taq DNA Polymerase Nucleotidyltransferase, Kinase (phosphorylatin		oxyribonucleate polynucleotide 3' / 5'-Hydroxyl-
NZIoC	:	On the inventory, or in	con	pliance 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

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

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### 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 Su Concern for Authorisation (Art		, ,	:	Not applicable
Regulation (EC) No 1005/200 plete the ozone layer	9 oı	n substances that de-	:	Not applicable
Regulation (EU) 2019/1021 or tants (recast)	n 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 pro	duc	are reported in the fo	ollo	wing inventories:
AIIC	:	Not in compliance with	the	e inventory
•				following components listed on the components are on the Canadian
Kinase (phosphorylat			ng),	polynucleotide 3' / 5'-Hydroxyl-
NZIoC	:	On the inventory, or in	cor	mpliance with the inventory



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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 Frag Enzyme (5X)

REACH - Restrictions on the m the market and use of certain of preparations and articles (Anne	langerous substances,	:	Not applicable
REACH - Candidate List of Sul Concern for Authorisation (Artic		:	Not applicable
Regulation (EC) No 1005/2009 plete the ozone layer	on substances that de-	:	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 proc	luct are reported in the fo	llo	wing inventories:
AIIC	: Not in compliance with		-
DSL : This product contains the following compo			following components that are not

on the Canadian DSL nor NDSL.

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		blood plasma, Cohn fraction V transferase, deoxyribonucleate
NZIoC	: On the inve	entory, or in compliance with the inventory
ENCS	: Not in com	pliance with the inventory
ISHL	: Not in com	pliance with the inventory
KECI	: Not in com	pliance with the inventory
PICCS	: Not in com	pliance with the inventory
IECSC	: Not in com	pliance with the inventory
TCSI	: Not in com	pliance with the inventory
TSCA	: Product co	ntains substance(s) not listed on TSCA inventory.
TECI	: Not in com	pliance with the inventory
Volatile organic compo		010/75/EU of 24 November 2010 on industrial (integrated pollution prevention and control) ble

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

Not a hazardous substance or mixture.

### KAPA Frag Conditioning Solution

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



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REACH - List of substances subject to authorisation : Not applicable (Annex XIV)

The components of this product are reported in the following inventories:AIIC: On the inventory, or in 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			
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 Frag 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



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mer	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)					
<b>The</b> AllC	e components of this	produc :	<b>et are reported in t</b> Not in compliance		-	
DSI	-	:	This product cont on the Canadian		following components that are not NDSL.	
			um salt 2'-deoxyadenosin Thymidine 5'-#(te	e 5'-(tetr	en triphosphate), 2'-deoxy-, trisodi- ahydrogen triphosphate) gen triphosphate)#, sodium salt phate disodium salt	
NZI	оС	:	On the inventory,	or in con	npliance with the inventory	
EN	CS	:	Not in compliance	e with the	inventory	
ISH	L	:	Not in compliance	e with the	inventory	
KE	CI	:	Not in compliance	e with the	inventory	
PIC	CS	:	Not in compliance	e with the	inventory	
IEC	SC	:	Not in compliance	e with the	inventory	
тся	SI	:	Not in compliance	e with the	inventory	
TSC	CA	:	Product contains	substanc	e(s) not listed on TSCA inventory.	
TEC	CI	:	Not in compliance	e with the	inventory	
Vola	atile organic compoun	ds :			4 November 2010 on industrial ution prevention and control)	

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

Not a hazardous substance or mixture.

### KAPA HyperPlus ER&AT Enzyme Mix

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 following entries should be considered: Detergent N (Number on list 46b,

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ersion 0	Revision 07.02.20				last issue: 16.08.2021 first issue: 17.05.2016
					46a.)
	date List of Subs horisation (Article	tances of Very High 9 59).	1	:	Not applicable
Regulation (EC) plete the ozone		n substances that d	le-	:	Not applicable
Regulation (EU) tants (recast)	2019/1021 on pe	ersistent organic po	llu-	:	Not applicable
• • • •	ouncil concerning	the European Parlia the export and imp		:	Not applicable
REACH - List of (Annex XIV)	substances subj	ect to authorisation		:	Not applicable
The componen	ts of this produ	ct are reported in t	the fo	llo	wing inventories:
AIIC	:	Not in compliance	e with	the	inventory
DSL	:	This product conta on the Canadian I			following components that are n NDSL.
		Taq DNA Polyme	rase		
NZIoC	:	On the inventory,	or in c	con	npliance with the inventory
ENCS	:	Not in compliance	e with	the	inventory
ISHL	:	Not in compliance	e with	the	inventory
KECI	:	Not in compliance	e with	the	inventory
PICCS	:	Not in compliance	e with t	the	inventory
IECSC	:	Not in compliance	e with t	the	inventory
TCSI	:	Not in compliance	e with	the	inventory
TSCA	:	Product contains	substa	anc	ce(s) not listed on TSCA invento
TECI	:	Not in compliance	e with t	the	inventory
Volatile organic	compounds :				4 November 2010 on industrial ution prevention and control)

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

Not a hazardous substance or mixture.





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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

11000		
H290	:	May be corrosive to metals.
H300	:	Fatal if swallowed.
H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H334	:	May cause allergy or asthma symptoms or breathing difficul-
		ties if inhaled.
H335	:	May cause respiratory irritation.
H370	:	Causes damage to organs.
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

Acute TOX.	
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Dam.	Serious eye damage
Met. Corr.	Corrosive to metals
Resp. Sens.	Respiratory sensitisation
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
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

### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA HyperPlus Kit



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

Roche

### 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.

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