

Version	Revision Date:	Date of last issue: 16.08.2021
3.0	07.02.2022	Date of first issue: 13.05.2016

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

1.1	Product identifier			
	Trade name	:	KAPA HyperPrep Kit	
	Product code	:	07962347001	
1.2	Relevant identified uses of th	e 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	saf	ety data sheet	
	Company	:	Roche Diagnostics Deutschla Sandhoferstrasse 116 68305 Mannheim Deutschland	nd GmbH
	Telephone		+496217590	
	Telefax Responsible Department E-mail address	:	+496217592890 +49(0)621-759-4223 info.dia-sds@roche.com	
1.4	Emergency telephone numbe	er		
	In case of emergencies:	:	Central Works Security Roche Diagnostics GmbH	+49(0)621-759-2203
	Centre for detoxification:	:	Mainz	+49(0)6131-19240

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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	H371 May cause damage to organs.
Precautionary statements	Prevention:
	P260 Do not breathe mist or vapours.P264 Wash skin thoroughly after handling.P280 Wear 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.
	Disposal:
	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	>= 1,0 - < 2,5
		Acute toxicity esti- mate Acute oral toxicity: 300,03 mg/kg	
hydrogen chloride	7647-01-0	Met. Corr. 1; H290	>= 1,0 - < 3,0

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

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Roch

10 - < 25 % STOT SE 3; H335 >= 10 %		231-595-7 017-002-01-X	STOT SE 3; H335	
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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	>= 1,0 - < 2,5
		Acute toxicity esti- mate Acute oral toxicity: 47 mg/kg	



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		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	< 0,1
		Acute oral toxicity: > 5.001 mg/kg Acute inhalation tox- icity (dust/mist): > 30 mg/l Acute dermal toxicity: > 5.001 mg/kg	

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. EC-No. Index-No.	Classification	Concentration (% w/w)
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	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.

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.

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



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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures				
Personal precautions	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.		
6.2 Environmental precautions				
Environmental precautions	:	Prevent 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

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

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	 Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
	Handle all samples as if potentially infectious, using safe la- boratory procedures. As the sensitivity and titer of potential pathogens in the sample material can vary, the operator must optimize pathogen inactivation and follow the appropriate measures according to local safety regulations. Do not eat, drink, or smoke in the laboratory area.



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			Do not pipette by	mouth.	
	Advice on protection again fire and explosion	nst :	Normal measures	s for preventive fire protection.	
	Hygiene measures	:		ot eat or drink. When using do not smoke. Fre breaks and at the end of workday.	
7.2	Conditions for safe stora	ige, incl	luding any incom	patibilities	
	Requirements for storage areas and containers	:	place. Electrical i	ghtly closed in a dry and well-ventilated nstallations / working materials must comply gical safety standards.	
	Further information on sto age conditions	or- :	See label, packa	ge insert or internal guidelines	
	Storage class (TRGS 510)) :	12, Non Combust	tible Liquids	
	Further information on sto age stability	or- :	No decomposition	n if stored and applied as directed.	
7.3	Specific end use(s)				
	Specific use(s)	:	Laboratory chemi	cals	

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 inform	nation: Indicative					
		STEL	10 ppm	2000/39/EC			
			15 mg/m3				
	Further information: Indicative						
	AGW 2 ppm DE TRGS 3 mg/m3 900						
	Peak-limit: excursion factor (category): 2;(I)						
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child						

KAPA Hyper Prep Ligation Buffer

Occupational Exposure Limits

Components CAS-No. Value type (Form Control parameters Basis	Components	CAS-No.	Value type (Form	Control parameters	Basis
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		of exposure)			
Polyethylenglycol	25322-68-3	AGW (Inhalable	1.000 mg/m3	DE TRGS	
6000		fraction)		900	
	Peak-limit: excursion factor (category): 8;(II)		ory): 8;(II)		
	Further information: When there is compliance with the OEL and biological				
	tolerance values, there is no risk of harming the unborn child				
		AGW (Inhalable	1.000 mg/m3	DE TRGS	
		fraction)		900	
	Peak-limit: excursion factor (category): 8;(II) Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child				
		AGW (Inhalable	200 mg/m3	DE TRGS	
		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	cursion factor (categ	ory): 2;(I)	
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			nd biological
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 of exposure)	Control parameters	Basis
glycerol	56-81-5	AGW (Inhalable fraction)	200 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(I)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			nd biological
Taq DNA Poly- merase	123340-12- 5	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)



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KAPA Hyper Prep DNA Ligase

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ducorol	56-81-5	AGW (Inhalable	200 mg/m3	DE TRGS
glycerol	50-01-5	``	200 mg/m3	
		fraction)		900
	Peak-limit: ex	cursion factor (categ	ory): 2;(I)	
	Further information: When there is compliance with the OEL and biological			
	tolerance valu	ies, there is no risk o	of harming the unborn child	
Kinase (phos-	37211-65-7	IOEL	0,00006 mg/m3	Roche Indus-
phorylating), poly-				trial Hygiene
nucleotide 3' / 5'-				Committee
Hydroxyl-				(RIHC)

8.2 Exposure controls

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

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			centration of the dangerous substance at the work place.
	Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
	Protective measures	:	Wear protective disposable gloves, laboratory coats and eye protection, when handling samples and kit reagents. Wash hands thoroughly after handling samples and reagents.

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SECTION 9: Physical and chemical properties

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

Revision Date:

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

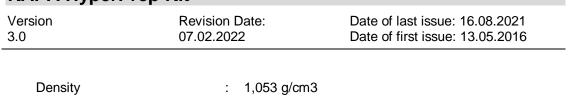


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Vapour pressure	: No data ava	ilable

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
Decomposition temperature pH	:	No data available 8,1
pH Viscosity	:	8,1
pH Viscosity Viscosity, dynamic	:	8,1 No data available
pH Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies)	:	8,1 No data available No data available completely miscible
pH Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility	:	8,1 No data available No data available completely miscible
pH Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n-	::	8,1 No data available No data available completely miscible No data available



Roche

Relative vapour density	: No data available
relative vapour density	

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
pH Viscosity Viscosity, dynamic	:	8,7 No data available
Viscosity		
Viscosity Viscosity, dynamic	:	No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies)	:	No data available No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility	:	No data available No data available completely miscible
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n-	:	No data available No data available completely miscible No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water	::	No data available No data available completely miscible No data available No data available
Viscosity Viscosity, dynamic Viscosity, kinematic Solubility(ies) Water solubility Solubility in other solvents Partition coefficient: n- octanol/water Vapour pressure	::	No data available No data available completely miscible No data available No data available



Roche

Relative vapour density : No data available

KAPA Library Amplification Primer Premixes (10X)

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



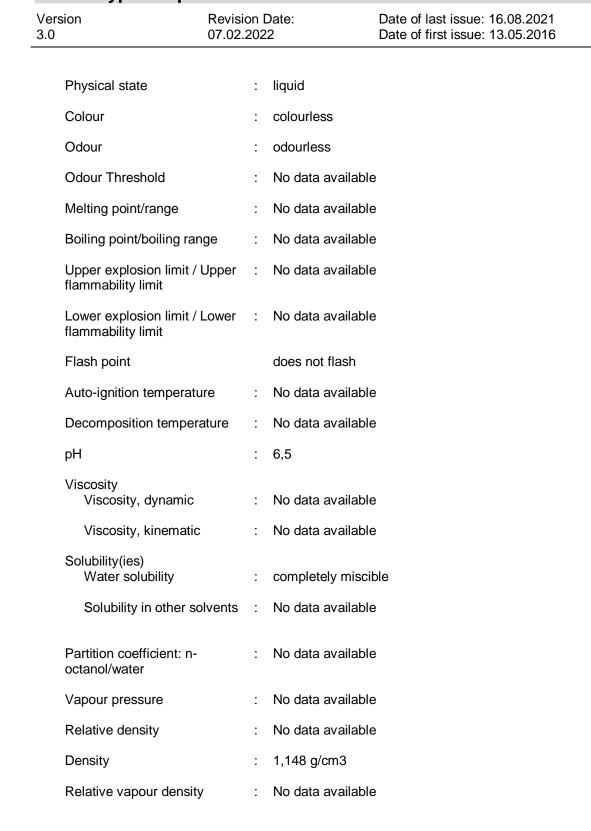
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KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

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

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9.2 Other information KAPA Hyper Prep End Repair and A-Tailing 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 Hyper Prep Ligation Buffer

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 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.

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

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KAPA Hyper Prep DNA Ligase

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

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

: No dangerous reaction known under conditions of normal use.

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No decomposition if stored and applied as directed.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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



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Acute toxicity

Not classified based on available information.

Components:

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

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

Skin corrosion/irritation

Not classified based on available information.

Components:

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

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

hydrogen chloride:

Result

: Causes burns.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

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

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

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GLP	: yes	
hydrogen chloride:		

Result

: Risk of serious damage to eyes.

Roch

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

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

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

Germ cell mutagenicity

Not classified based on available information.

Components:

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

Genotoxicity in vitro	: Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: Mutagenicity (Salmonella typhimurium - reverse mu- tation assay) Result: negative GLP: yes
	Test Type: Microbial mutagenesis assay (Ames test) Test system: Escherichia coli Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

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.



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Components:

hydrogen chloride:

Assessment

May cause respiratory irritation. 1

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

KAPA Hyper Prep Ligation Buffer

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 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



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	GLP: no	
		ity estimate: 47 mg/kg alculation method
Acute dermal toxicit		al (Rabbit): > 200 - < 500 mg/kg ECD Test Guideline 402

GLP: yes

Acute toxicity estimate: 200,02 mg/kg

Method: Calculation method

Skin corrosion/irritation

Not classified based on available information.

Components:

tetramethylammonium chloride:			
Result	:	Irritating to skin.	

Serious eye damage/eye irritation

Not classified based on available information.

Components:

tetramethylammonium chloride:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

tetramethylammonium chloride:

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

:

Germ cell mutagenicity

Not classified based on available information.

Components:

tetramethylammonium chloride:

Genotoxicity in vitro

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



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Result: negative

Test Type: Microbial mutagenesis assay (Ames test) Test system: Escherichia coli Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause damage to organs.

Components:

tetramethylammonium chloride:

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

Nucleotidyltransferase, deoxyribonucleate:

Assessment	:	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

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



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KAPA Library Amplification Primer Premixes (10X)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

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



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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.

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.

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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.



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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:

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

Remarks

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

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

11.2 Information on other hazards

Endocrine disrupting properties

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 End Repair and A-Tailing Buffer

Endocrine disrupting properties

Product:

Assessment

- ties
- ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

KAPA Hyper Prep 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)

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation



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(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

KAPA 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.

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



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Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: nominal concentration

NOErC (Raphidocelis subcapitata (freshwater green alga)): 3,2 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test 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 chlor	:	
Toxicity to fish	LC50 (Pimephales promelas (fathead minnow)): 46 Exposure time: 96 h Method: OECD Test Guideline 203	32 mg/l
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	

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		Exposure time: 48 h GLP: yes
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 1 mg/l 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

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Nucleotidyltransferase, deoxyribonucleate:

Ecotoxicology Assessment

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

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KAPA Library Amplification Primer Premixes (10X)

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

Components:

Taq DNA Polymerase:		
Toxicity to fish	:	LC50 : > 100 mg/l

	. LOGU. >	i oo mg/i
-	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



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Components:

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

Ecotoxicology Assessment

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

Other organisms relevant to : No data available the environment

12.2 Persistence and degradability KAPA 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 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-	Method: see user defined free text
ity	Remarks: Not abiotically degradable

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

12.3 Bioaccumulative potential

KAPA Hyper Prep End Repair and A-Tailing Buffer

Components:

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



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Partition coefficient: n-	: log Pow: 0,07 (25 °C)	
octanol/water	pH: 5,0	
	Method: OECD Test Guideline 1	17
	GLP: yes	

hydrogen chloride:

Partition coefficient: noctanol/water

: Remarks: No data available

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

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



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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

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

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.

KAPA Hyper Prep End Repair and A-Tailing Buffer

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

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 HiFi HotStart ReadyMix (2X)



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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 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.

KAPA Hyper Prep End Repair & A-Tailing Enzyme Mix

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 (ELI) 2017/2100 or Commission Degradation (ELI) 2018/605 of
	(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at
	levels of 0.1% or higher.

KAPA Hyper Prep DNA Ligase

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

12.7 Other adverse effects

KAPA 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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

: Do not contaminate ponds, waterways or ditches with chemi-

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	Send to Can be	sed container. a licensed waste management company. disposed as waste water, when in compliance with gulations.
		unused reagents and waste in accordance with coun- eral, state and local regulations.
Contaminated packa	Dispose Empty o dling sit	emaining contents. e of as unused product. containers should be taken to an approved waste han- e for recycling or disposal. 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

14.6 Special precautions for user

Remarks

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

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14.7 Maritime transport in bulk according to IMO instruments

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Remarks : Not applicable

SECTION 15: Regulatory information

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

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

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



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KAPA Hyper Prep End Repair and A-Tailing Buffer

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)			Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Candidate List of S Concern for Authorisation (Ar		:	Not applicable
Regulation (EC) No 1005/200 plete the ozone layer	09 on substances that de-	:	Not applicable
Regulation (EU) 2019/1021 o tants (recast)	n 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 pro	oduct are reported in the f	follo	wing inventories:
AIIC	: Not in compliance wit		-
DSL	: This product contains on the Canadian DSL		following components that are not NDSL.
	Adenosine 5#-triphos Guanosine 5'-(tetrahy um salt 2'-Deoxycytidine 5'-tri	phat drog phos	rahydrogen triphosphate) e disodium salt hydrate gen triphosphate), 2'-deoxy-, trisodi- sphate disodium salt gen triphosphate)#, sodium salt
NZIoC	: On the inventory, or in	n coi	mpliance with the inventory
ENCS	: Not in compliance wit	h the	e inventory
ISHL	: Not in compliance wit	h the	e inventory
KECI	: Not in compliance wit	h the	e inventory
PICCS	: Not in compliance wit	h the	e inventory
IECSC	: Not in compliance wit	h the	e inventory
TCSI	: Not in compliance wit	h the	e inventory
TSCA	: Product contains subs	stan	ce(s) not listed on TSCA inventory.



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TECI	:	Not in com	pliance with the inventory
Volatile organic compo	unds :		010/75/EU of 24 November 2010 on industrial integrated pollution prevention and control) ble
Labelling (REGULATION Hazard pictograms	DN (EC) :	No 1272/2008	3)
Signal word	:	Warning	
Hazard statements	:	H319 Cau	ses serious eye irritation.
Precautionary statemer	nts :		h skin thoroughly after handling. Ir eye protection/ face protection.
			al minutes. Remove contact lenses, if present and Continue rinsing.

KAPA Hyper Prep Ligation Buffer

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



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The components of this product are reported in the following inventories:			
AIIC	:	Not in compliance with the inventory	
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.	
		Adenosine 5#-triphosphate disodium salt hydrate	
NZIOC	:	On the inventory, or in compliance with the inventory	
ENCS	:	Not in compliance with the inventory	
ISHL	:	Not in compliance with the inventory	
KECI	:	Not in compliance with the inventory	
PICCS	:	Not in compliance with the inventory	
IECSC	:	Not in compliance with the inventory	
TCSI	:	On the inventory, or in compliance with the inventory	
TSCA	:	Product contains substance(s) not listed on TSCA inventory.	
TECI	:	Not in compliance with the inventory	
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable	

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA HiFi HotStart ReadyMix (2X)

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



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Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

Other regulations:

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

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

The components of this product are reported in the following inventor	ories:
---	--------

AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.
		Guanosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-, trisodi- um salt 2'-deoxyadenosine 5'-(tetrahydrogen triphosphate) Thymidine 5'-#(tetrahydrogen triphosphate)#, sodium salt 2'-Deoxycytidine 5'-triphosphate disodium salt Antibodies dUTP diphosphatase Nucleotidyltransferase, deoxyribonucleate
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
TECI	:	Not in compliance with the inventory
Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable

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Labelling (REGULATION (EC) No 1272/2008)

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

Hazardous components which must be listed on the label:

75-57-0 tetramethylammonium chloride

KAPA Library Amplification Primer Premixes (10X)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
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	:	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 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 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



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Regulation (I tants (recast	EU) 2019/1021 on pe)	ersistent organic po	llu- :	Not applicable		
ment and the	Regulation (EC) No 649/2012 of the European Parlia- : Not applicable ment and the Council concerning the export and import of dangerous chemicals					
REACH - Lis (Annex XIV)	t of substances subj	ect to authorisation	:	Not applicable		
The compor	nents of this produc	ct are reported in t	he follo	wing inventories:		
AIIC	:	Not in compliance	e with the	e inventory		
DSL	:	This product cont on the Canadian		following components that are not NDSL.		
		Taq DNA Polyme Nucleotidyltransfe Kinase (phosphor	erase, de	oxyribonucleate polynucleotide 3' / 5'-Hydroxyl-		
NZIoC	:	On the inventory, or in compliance with the inventory				
ENCS	:	Not in compliance with the inventory				
ISHL	:	Not in compliance with the inventory				
KECI	:	Not in compliance	e with the	e inventory		
PICCS	:	Not in compliance	e with the	e inventory		
IECSC	:	Not in compliance	e with the	e inventory		
TCSI	:	Not in compliance	e with the	e inventory		
TSCA	:	Product contains	substand	ce(s) not listed on TSCA inventory.		
TECI	:	Not in compliance	e with the	e inventory		
Volatile orga	nic compounds :			4 November 2010 on industrial ution prevention and control)		

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

KAPA Hyper Prep DNA Ligase

REACH - Restrictions on the manufacture, placing on : Not applicable the market and use of certain dangerous substances,



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preparations and articles	nnex XVII)
REACH - Candidate List Concern for Authorisation	Substances of Very High : Not applicable Article 59).
Regulation (EC) No 1005 plete the ozone layer	009 on substances that de- : Not applicable
Regulation (EU) 2019/10 tants (recast)	on persistent organic pollu- : Not applicable
3 ()	12 of the European Parlia- : Not applicable erning the export and import
REACH - List of substand (Annex XIV)	s 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 listed on t Canadian NDSL. All other components are on the Canadia DSL.
	Kinase (phosphorylating), polynucleotide 3' / 5'-Hydroxyl-
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
TECI	: Not in compliance with the inventory
Volatile organic compour	 Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable



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Not a hazardous substance or mixture.

15.2 Chemical safety assessment

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

SECTION 16: Other information

Full text of H-Statements

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.
H318	:	Causes serious eye damage.
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 toxicity
	Long-term (chronic) aquatic hazard
	Serious eye damage
Met. Corr. :	Corrosive to metals
Skin Corr. :	Skin corrosion
Skin Irrit. :	Skin irritation
STOT SE :	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic sub-

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



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stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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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