according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

Version Revision Date: Date of last issue: 16.08.2021 2.3 Date of first issue: 17.05.2016



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

1.1 Product identifier

Trade name : KAPA HyperPlus Kit (PCR-free)

Product code : 07962398001

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

Recommended restrictions : For professional users only.

on use

1.3 Details of the supplier of the safety data sheet

Company : Roche Diagnostics Deutschland GmbH

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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

In case of emergencies: : Central Works Security +49(0)621-759-2203

Roche Diagnostics GmbH

Centre for detoxification: : Mainz +49(0)6131-19240

Munich +49(0)89-19240

#### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

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

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word : Warning

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Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling.P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

#### 2.3 Other hazards

Ecological information: 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 estimate Acute oral toxicity:	>= 1,0 - < 2,5
		300,03 mg/kg	
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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	specific concentration limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 10 - < 25 % Eye Irrit. 2; H319 10 - < 25 % STOT SE 3; H335 >= 10 %	
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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 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.	Classification	Concentration (% w/w)
	Index-No.		(70 11,11)
	Registration number		
Taq DNA Polymerase	123340-12-5		< 0,1
		A	
		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	

For explanation of abbreviations see section 16.

### KAPA Hyper Prep DNA Ligase

according to Regulation (EC) No. 1907/2006



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

Not a hazardous substance or mixture.

Components

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

For explanation of abbreviations see section 16.

### KAPA Frag Enzyme (5X)

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

Not a hazardous substance or mixture.

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
	Index-No.		, ,
	Registration number		
Nucleotidyltransferase, deoxyribonucleate	9012-90-2 232-741-2	Not classified	< 0,1
Nuclease, deoxyribo-	9003-98-9 232-667-0	Resp. Sens. 1; H334 Skin Sens. 1; H317	< 0,1

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.

according to Regulation (EC) No. 1907/2006



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# KAPA HyperPlus ER&AT 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 estimate  Acute oral toxicity: > 5.001 mg/kg Acute inhalation toxicity (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 eve.

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.

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If symptoms persist, call a physician.

Rinse mouth with water.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

### **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Unsuitable extinguishing

media

High volume water jet

### 5.2 Special hazards arising from 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 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.

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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 contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, 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

### **SECTION 8: Exposure controls/personal protection**

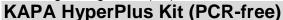
#### 8.1 Control parameters

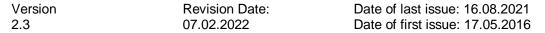
### KAPA Hyper Prep End Repair and A-Tailing Buffer

### **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	2000/39/EC

according to Regulation (EC) No. 1907/2006







		15 mg/m3	
Fu	urther information: Indicativ	/e	
	AGW	2 ppm 3 mg/m3	DE TRGS
		3 mg/m3	900
Pe	eak-limit: excursion factor (	(category): 2;(I)	
Fu	urther information: When th	nere is compliance with the	e OEL and biological
to	lerance values, there is no	risk of harming the unbor	n child

# KAPA Hyper Prep Ligation Buffer

# **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Polyethylenglycol	25322-68-3	AGW (Inhalable	1.000 mg/m3	DE TRGS
6000		fraction)	_	900
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)	
	Further inform	ation: When there is	compliance with the OEL ar	nd biological
	tolerance valu	ies, there is no risk o	of harming the unborn child	
		AGW (Inhalable	1.000 mg/m3	DE TRGS
		fraction)		900
	Peak-limit: ex	cursion factor (categ	ory): 8;(II)	
	Further inform	nation: When there is	compliance with the OEL ar	nd biological
	tolerance valu	ies, there is no risk c	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 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: 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				
Taq DNA Poly- merase	123340-12- 5	IOEL	0,00006 mg/m3	Roche Indus- trial Hygiene Committee (RIHC)		

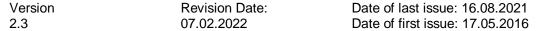
### KAPA Hyper Prep DNA Ligase

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
glycerol	56-81-5	AGW (Inhalable	200 mg/m3	DE TRGS

according to Regulation (EC) No. 1907/2006







		fraction)		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			
Kinase (phos- phorylating), poly- nucleotide 3' / 5'- Hydroxyl-	37211-65-7	IOEL	0,00006 mg/m3	Roche Industrial 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: 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 Industrial Hygiene Committee (RIHC)		
Nuclease, deoxyri- bo-	9003-98-9	IOEL	0,00006 mg/m3	Roche Industrial Hygiene Committee (RIHC)		

### KAPA Frag Conditioning Solution

Contains no substances with occupational exposure limit values.

# KAPA Frag Buffer (10X)

Contains no substances with occupational exposure limit values.

# KAPA HyperPlus ER&AT 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		
		,		300		
	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					
Taq DNA Poly- merase	123340-12- 5	IOEL	0,00006 mg/m3	Roche Industrial Hygiene Committee (RIHC)		

according to Regulation (EC) No. 1907/2006

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# Roche

#### 8.2 Exposure controls

#### **Engineering measures**

No data available

### Personal protective equipment

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

In case of contact through splashing:

Material : Nitrile rubber
Break through time : > 30 min
Glove thickness : > 0,11 mm

In case of full contact:

Material : butyl-rubber
Break through time : > 480 min
Glove thickness : > 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 concentration of the dangerous substance at the work place.

#### **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

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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

pH : 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

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



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# **KAPA HyperPlus Kit (PCR-free)**

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Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point does not flash

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 8,1

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 : 1,053 g/cm3

Relative vapour density : No data available

### 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 : No data available



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# **KAPA HyperPlus Kit (PCR-free)**

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flammability limit

Lower explosion limit / Lower

flammability limit

No data available

Flash point does not flash

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 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 : liquid

Colour : colourless

Odour : odourless

Odour Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available



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# **KAPA HyperPlus Kit (PCR-free)**

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Flash point does not flash

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 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

Odour Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point does not flash

Auto-ignition temperature : No data available



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# **KAPA HyperPlus Kit (PCR-free)**

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Decomposition temperature : No data available

pH : 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

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

pH : 9,0



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# **KAPA HyperPlus Kit (PCR-free)**

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Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Vapour pressure : No data available

Relative density : No data available

Density : 0,990 g/cm3

Relative vapour density : No data available

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.

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point does not flash

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 8,3

Viscosity



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# **KAPA HyperPlus Kit (PCR-free)**

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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

# 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

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point does not flash

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : ca. 5,5

Viscosity

Viscosity, dynamic : No data available



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# **KAPA HyperPlus Kit (PCR-free)**

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Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Vapour pressure : No data available

Relative density : No data available

Density : ca. 1,15 g/cm3

Relative vapour density : No 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 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 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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# **KAPA HyperPlus Kit (PCR-free)**

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Flammability (liquids) : Does not sustain combustion.

Self-ignition : Not applicable

Evaporation rate : No data available

### KAPA Hyper Prep DNA Ligase

Explosives : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : Not applicable

Evaporation rate : No data available

KAPA 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)



according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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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

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

### **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 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





according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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# Roche

#### **Acute toxicity**

Not classified based on available information.

#### **Components:**

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

Acute oral toxicity : LD50 (Rat, female): > 300 - < 2.000 mg/kg

Method: OECD Test Guideline 423

GLP: yes

Acute toxicity estimate: 300,03 mg/kg

Method: Calculation method

Acute toxicity (other routes of :

administration) Symptoms: May cause cardiac arrhythmia., Convulsions,

Vomiting

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

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

Species : human keratinocytes

Exposure time : 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.

#### 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.

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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**GLP** : yes

hydrogen chloride:

Result Risk of serious damage to eyes.

### 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.

: OECD Test Guideline 429 Method

**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

Result: negative

GLP: yes

#### Carcinogenicity

Not classified based on available information.

#### Reproductive toxicity

Not classified based on available information.

### STOT - single exposure



according to Regulation (EC) No. 1907/2006

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#### **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**

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

according to Regulation (EC) No. 1907/2006

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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

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.

### **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**



according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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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.

#### **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

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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# 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.

#### 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**

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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#### 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

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 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

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# **KAPA HyperPlus Kit (PCR-free)**

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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 HyperPlus ER&AT 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

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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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.

#### 11.2 Information on other hazards

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

### **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 Hyper Prep Ligation Buffer

#### **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

according to Regulation (EC) No. 1907/2006



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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 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 DNA Ligase

### **Endocrine disrupting properties**

**Product:** 

Assessment : The substance/mixture does not contain components consid-

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

levels of 0.1% or higher.

### KAPA Frag Enzyme (5X)

#### **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 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)

#### **Endocrine disrupting properties**

**Product:** 

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to

according to Regulation (EC) No. 1907/2006



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

### KAPA HyperPlus ER&AT Enzyme Mix

### **Endocrine disrupting properties**

Product:

Assessment The substance/mixture does not contain components consid-

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

levels of 0.1% or higher.

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

### 12.1 Toxicity

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

#### **Components:**

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

aquatic invertebrates

Toxicity to daphnia and other : 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: ves

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: ves

Remarks: nominal concentration

NOErC (Raphidocelis subcapitata (freshwater green alga)):

3,2 mg/l

End point: Growth rate Exposure time: 72 h

according to Regulation (EC) No. 1907/2006

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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 Hyper Prep End Repair & A-Tailing 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

KAPA Hyper Prep DNA Ligase

**Components:** 

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

**Ecotoxicology Assessment** 

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

according to Regulation (EC) No. 1907/2006

# KAPA HyperPlus Kit (PCR-free)

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Other organisms relevant to

the environment

No data available

### KAPA Frag Enzyme (5X)

### **Components:**

#### Nucleotidyltransferase, deoxyribonucleate:

### **Ecotoxicology Assessment**

Toxicity Data on Soil Not expected to adsorb on soil.

Other organisms relevant to

the environment

No data available

#### 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:





according to Regulation (EC) No. 1907/2006

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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 Remarks: Not abiotically degradable

### KAPA Hyper Prep Ligation Buffer

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: nlog 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 Hyper Prep Ligation Buffer

No data available

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

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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# Roche

#### Components:

**Taq DNA Polymerase:** 

Partition coefficient: n-

octanol/water

: Remarks: No data available

### KAPA Hyper Prep DNA Ligase

#### **Components:**

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

Partition coefficient: n-

: Remarks: No data available

octanol/water

### KAPA Frag Enzyme (5X)

#### **Components:**

Nucleotidyltransferase, deoxyribonucleate:

Partition coefficient: n- : Remarks: No data available

octanol/water

Nuclease, deoxyribo-:

Partition coefficient: n-

octanol/water

: Remarks: No data available

# KAPA Frag Conditioning Solution

No data available

KAPA Frag Buffer (10X)

No data available

### KAPA HyperPlus ER&AT Enzyme Mix

### **Components:**

Taq DNA Polymerase:

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 Hyper Prep End Repair & A-Tailing Enzyme Mix

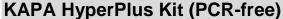
No data available

#### KAPA Hyper Prep DNA Ligase

No data available

### KAPA Frag Enzyme (5X)

according to Regulation (EC) No. 1907/2006



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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 Hyper Prep End Repair & A-Tailing Enzyme Mix

Not relevant

KAPA Hyper Prep DNA Ligase

Not relevant

KAPA Frag Enzyme (5X)

Not relevant

KAPA Frag Conditioning Solution

Not relevant

KAPA Frag Buffer (10X)

Not relevant

KAPA HyperPlus ER&AT Enzyme Mix

Not relevant

12.6 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 Hyper Prep End Repair and A-Tailing Buffer

**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 Hyper Prep Ligation Buffer

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to

according to Regulation (EC) No. 1907/2006



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

### KAPA 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 (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

## KAPA Hyper Prep DNA Ligase

Assessment : The substance/mixture does not contain components consid-

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 Enzyme (5X)

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 Conditioning Solution

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)

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 HyperPlus ER&AT 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 (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

according to Regulation (EC) No. 1907/2006

## **KAPA HyperPlus Kit (PCR-free)**

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## KAPA Hyper Prep Ligation Buffer

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

according to Regulation (EC) No. 1907/2006

# KAPA HyperPlus Kit (PCR-free)

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14.6 Special precautions for user

Remarks Not dangerous goods in the meaning of ADR/RID, ADN,

IMDG-Code, ICAO/IATA-DGR

14.7 Maritime transport in bulk according to IMO instruments

Remarks Not applicable

**SECTION 15: Regulatory information** 

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

Not applicable

ture

Seveso III: Directive 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

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 following entries should be considered:

Number on list 3

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament 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.

according to Regulation (EC) No. 1907/2006

## **KAPA HyperPlus Kit (PCR-free)**

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2'-deoxyadenosine 5'-(tetrahydrogen triphosphate)
Adenosine 5'-triphosphate disodium salt hydrate

Guanosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-, trisodi-

um salt

2'-Deoxycytidine 5'-triphosphate disodium salt

Thymidine 5'-(tetrahydrogen triphosphate), sodium salt

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

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

TCSI : Not in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

TECI : Not in compliance with the inventory

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control)

Not applicable

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

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling.P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

according to Regulation (EC) No. 1907/2006

# **KAPA HyperPlus Kit (PCR-free)**

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## 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)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

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.

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

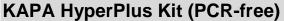
TSCA : Product contains substance(s) not listed on TSCA inventory.

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)

according to Regulation (EC) No. 1907/2006



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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 following 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 de-

plete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament 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.

Taq DNA Polymerase

Nucleotidyltransferase, deoxyribonucleate

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

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

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

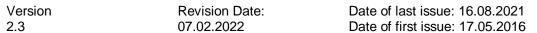
KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

according to Regulation (EC) No. 1907/2006





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 DNA Ligase

REACH - Restrictions on the manufacture, placing on

the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

: 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 the

Canadian NDSL. All other components are on the Canadian

DSL.

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

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

ENCS : Not in compliance with the inventory

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according to Regulation (EC) No. 1907/2006

## **KAPA HyperPlus Kit (PCR-free)**

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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

Not applicable

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

Not a hazardous substance or mixture.

### KAPA Frag Enzyme (5X)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

REACH - Candidate List of Substances of Very High : Not applicable

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that de- : Not applicable

plete the ozone layer

Regulation (EU) 2019/1021 on persistent organic pollu- : Not applicable

tants (recast)

Regulation (EC) No 649/2012 of the European Parlia: Not applicable

ment and the Council concerning the export and import of dangerous chemicals

REACH - List of substances subject to authorisation : Not applicable

(Annex XIV)

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

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

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according to Regulation (EC) No. 1907/2006

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T4-GEN32-Proteine

Albumins, blood plasma, Cohn fraction V Nucleotidyltransferase, deoxyribonucleate

Nuclease, deoxyribo-

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 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 de-

plete the ozone layer

: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

Not applicable

REACH - List of substances subject to authorisation

Not applicable

according to Regulation (EC) No. 1907/2006

## **KAPA HyperPlus Kit (PCR-free)**

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(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)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

: Not applicable

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

: Not applicable

Regulation (EC) No 649/2012 of the European Parlia: Not applicable

according to Regulation (EC) No. 1907/2006

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ment and the Council concerning the export and import of dangerous chemicals

REACH - List of substances subject to authorisation : Not applicable

(Annex XIV)

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

AIIC : Not in 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

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 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, 46a.)

according to Regulation (EC) No. 1907/2006

## **KAPA HyperPlus Kit (PCR-free)**

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REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

: Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament 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.

Taq DNA Polymerase

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.

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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**

H290 : May be corrosive to metals.

H302 : Harmful if swallowed.

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.

H412 : Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Chronic : Long-term (chronic) aquatic hazard

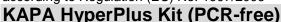
Eye Dam.Met. Corr.Resp. Sens.Serious eye damageCorrosive to metalsRespiratory sensitisation

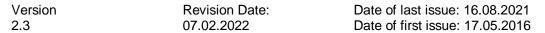
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

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 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 Re-

according to Regulation (EC) No. 1907/2006







striction 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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