

## KAPA Library Quantification Kit (Illumina/LC480)

Version Revision Date: Date of last issue: 10-11-2021 2.0 03-25-2022 Date of first issue: 05-23-2016

#### **SECTION 1. IDENTIFICATION**

Product name : KAPA Library Quantification Kit (Illumina/LC480)

Product code : 07960298001

Manufacturer or supplier's details

Company name of supplier : Roche Diagnostics

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Address : 9115 Hague Road

Indianapolis, IN 46250

USA

Telephone : 1-800-428-5074

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300 (U.S. or Ca-

nada)

1-703-527-3887 (Internatio-

nal)

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.

#### **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

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

#### **GHS** label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H370 Causes damage to organs.

Precautionary Statements : Prevention:

P260 Do not breathe mist or vapors. P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response:

P307 + P311 IF exposed: Call a POISON CENTER or doctor/

physician.

Storage:



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P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

## 2x SYBR Fast LghtCyc480 MM (5 ml)

#### **GHS Classification**

Specific target organ toxicity : Category 1

- single exposure

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
glycerol	56-81-5	>= 10 - < 20
Methane, 1,1'-sulfinylbis-	67-68-5	>= 5 - < 10
Methanaminium, N,N,N-trimethyl-,	75-57-0	>= 1 - < 5
chloride (1:1)		
1,3-Propanediol, 2-amino-2-	77-86-1	>= 1 - < 5
(hydroxymethyl)-		

Actual concentration is withheld as a trade secret

## KAPA Library Quantification DNA Standards 0-6

## **GHS Classification**

Not a hazardous substance or mixture.

## Components

No hazardous ingredients

## KAPA Library Quantification Primer Premix (10X)

#### **GHS Classification**

Not a hazardous substance or mixture.

### Components

No hazardous ingredients

#### **SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.

Show this material safety data sheet to the doctor in atten-

dance.

Do not leave the victim unattended.



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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 : 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.

Most important symptoms and effects, both acute and

delayed

None known.

Notes to physician : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

#### **SECTION 5. FIRE-FIGHTING MEASURES**

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

cumstances and the surrounding environment.

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire

fighting

No information available.

Further information : Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Special protective equipment:

for fire-fighters

Wear self-contained breathing apparatus for firefighting if

necessary.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Use personal protective equipment.

Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent product from entering drains.



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Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials 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.

#### **SECTION 7. HANDLING AND STORAGE**

Advice on protection against :

fire and explosion

Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapors/dust.

Avoid exposure - obtain special instructions before use.

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

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

plication area.

Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated pla-

ce.

Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Further information on stor-

age conditions

See label, package insert or internal guidelines

Further information on stor-

age stability

No decomposition if stored and applied as directed.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 2x SYBR Fast LghtCyc480 MM (5 ml)

### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
glycerol	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1
		TWA (Mist - total dust)	10 mg/m3	OSHA P0
		TWA (Mist - respirable fraction)	5 mg/m3	OSHA P0
Methane, 1,1'-sulfinylbis-	67-68-5	TWA	250 ppm	US WEEL



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## KAPA Library Quantification DNA Standards 0-6

## Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

## KAPA Library Quantification Primer Premix (10X)

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

Personal protective equipment

Respiratory protection : In the case of vapor formation use a respirator with an appro-

ved filter

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 : Wear appropriate protective gloves to prevent skin contact.

Replace torn or punctured gloves promptly.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

## 2x SYBR Fast LghtCyc480 MM (5 ml)

Appearance : liquid

Color : No data available

Odor : No data available

Odor Threshold : No data available



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pH : 9.0

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (solid, gas) : Does not sustain combustion.

Flammability (liquids) : Does not sustain combustion.

Self-ignition : Not applicable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Density : 1.044 g/cm3

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

## KAPA Library Quantification DNA Standards 0-6

Appearance : liquid

Color : colorless



## KAPA Library Quantification Kit (Illumina/LC480)

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Odor : odorless

Odor Threshold : No data available

pH : 7.7

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : Not applicable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Density : 0.996 g/cm3

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : Not explosive



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

KAPA Library Quantification Primer Premix (10X)

Appearance : liquid

Color : colorless

Odor : odorless

Odor Threshold : No data available

pH : 7.7

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : Not applicable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Density : 0.996 g/cm3

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available



## KAPA Library Quantification Kit (Illumina/LC480)

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: No data available Autoignition temperature

Decomposition temperature No data available

Viscosity

Viscosity, dynamic No data available

No data available Viscosity, kinematic

Explosive properties Not explosive

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

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability Stable under normal conditions.

tions

Possibility of hazardous reac- : No decomposition if stored and applied as directed.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

## 2x SYBR Fast LghtCyc480 MM (5 ml)

### **Acute toxicity**

Not classified based on available information.

#### **Components:**

glycerol:

Acute oral toxicity : LC50 (Mouse): 11,500 mg/kg

LC50 (Rat, male): 275000 mg/m3 Acute inhalation toxicity

> Exposure time: 7 h Test atmosphere: vapor

GLP: no

Assessment: The component/mixture is minimally toxic after

short term inhalation.

Acute dermal toxicity : LD50 (Guinea pig, male and female): 56,750 mg/kg

GLP: no

Methane, 1,1'-sulfinylbis-:

Acute oral toxicity LD50 (Rat, male and female): 28,300 mg/kg

Method: OECD Test Guideline 401

GLP: no

Acute inhalation toxicity LC0 (Rat, male and female): > 5.33 mg/l



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Exposure time: 4 h
Test atmosphere: vapor

Method: OECD Test Guideline 403

GLP: yes

Acute dermal toxicity : LD50 Dermal (Rat, male and female): 40,000 mg/kg

GLP: no

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Acute oral toxicity : LD50 Oral (Rat): 47 mg/kg

Method: OECD Test Guideline 401

GLP: no

Acute dermal toxicity : LD50 Dermal (Rabbit): > 200 - < 500 mg/kg

Method: OECD Test Guideline 402

GLP: yes

1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg

Method: OECD Test Guideline 425

GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Skin corrosion/irritation

Not classified based on available information.

**Components:** 

glycerol:

Species : Rabbit Exposure time : 24 h

Result : No skin irritation

GLP : no

Methane, 1,1'-sulfinylbis-:

Species : Rabbit Exposure time : 4 h

Method : OECD Test Guideline 404

GLP : yes

Remarks : Mild skin irritation

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Result : Irritating to skin.

1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Species : Rabbit Exposure time : 4 h

Method : OECD Test Guideline 404

Result : No skin irritation



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GLP : yes

## Serious eye damage/eye irritation

Not classified based on available information.

## **Components:**

glycerol:

Species : Rabbit

Result : No eye irritation

Exposure time : 7 d GLP : no

Methane, 1,1'-sulfinylbis-:

Species : Rabbit Exposure time : 24 h

Method : OECD Test Guideline 405 GLP : No information available.

Remarks : Mild eye irritation

#### Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

### 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Species : Rabbit

Result : No eye irritation

Exposure time : 72 h

Method : OECD Test Guideline 405

GLP : yes

#### Respiratory or skin sensitization

#### Skin sensitization

Not classified based on available information.

### Respiratory sensitization

Not classified based on available information.

#### **Components:**

### glycerol:

Assessment : Mild eye irritant, Mild respiratory irritant, No skin irritation

### Methane, 1,1'-sulfinylbis-:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Assessment : Does not cause skin sensitization.

Method : OECD Test Guideline 429

GLP : No information available.

Assessment : Mild eye irritation, Mild skin irritation



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## Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Assessment : Does not cause skin sensitization.

Method : OECD Test Guideline 429

## 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Test Type : Direct Peptide Reactivity Assay (DPRA) Assessment : Does not cause skin sensitization.

GLP : yes

Remarks : Based on data from similar materials

Expert judgment

Test Type : Buehler Test Species : Guinea pig

Method : OECD Test Guideline 406

GLP : no

Remarks : Based on data from similar materials

Test Type : Intracutaneous test

Species : Guinea pig

GLP : no

Remarks : Based on data from similar materials

## Germ cell mutagenicity

Not classified based on available information.

## **Components:**

## glycerol:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

GLP: No information available.

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: No information available.

#### Methane, 1,1'-sulfinylbis-:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: No information available.

Test Type: Chromosome aberration test in vitro



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Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

GLP: No information available.

Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 479

Result: negative

GLP: No information available.

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Rat (male and female)

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Dose: 200, 1000, 5000 mg/kg/d Method: OECD Test Guideline 474

GLP: yes

## Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Test system: Salmonella typhimurium

Result: negative

Test Type: Microbial mutagenesis assay (Ames test)

Test system: Escherichia coli

Result: negative

### 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative GLP: yes

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative GLP: yes

Test Type: Microbial mutagenesis assay (Ames test)

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: yes

Remarks: Based on data from similar materials



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### Carcinogenicity

Not classified based on available information.

### **Components:**

glycerol:

Species : Rat, male and female

Application Route : Oral Exposure time : 2 Years

GLP : No information available.

Remarks : No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

#### Reproductive toxicity

Not classified based on available information.

## **Components:**

glycerol:

Effects on fertility : Test Type: Two-generation study

Species: Rat, male and female

Application Route: Oral Dose: 2000 mg/kg bw/day

Fertility: NOAEL: 2,000 mg/kg body weight

GLP: no

Effects on fetal development : Species: Rabbit, female

Application Route: Oral

Dose: 11.8, 54.8, 254.5, 1180 mg/kg bw/day

Duration of Single Treatment: 29 d

Developmental Toxicity: NOAEL: 1,180 mg/kg bw/day

GLP: no

Methane, 1,1'-sulfinylbis-:

Effects on fertility : Species: Rat, male and female

**Application Route: Oral** 

Dose: 100, 300, 1000 mg/kg bw/day Fertility: NOAEL: 1,000 mg/kg body weight

Method: OECD Test Guideline 421

GLP: yes

Effects on fetal development : Species: Rat, female

Application Route: Oral

Dose: 200, 1000, 5000 milligram per kilogram

Duration of Single Treatment: 10 d



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Developmental Toxicity: NOAEL: 1,000 mg/kg body weight

Method: OECD Test Guideline 414

GLP: yes

## 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Effects on fertility : Test Type: reproductive and developmental toxicity study

Species: Rat, male and female

Application Route: Oral

Dose: 100, 300, 1000 mg/kg bw/day

General Toxicity Parent: NOAEL: > 1,000 mg/kg body weight General Toxicity F1: NOAEL: > 1,000 mg/kg body weight

Method: OECD Test Guideline 421

Result: Animal testing did not show any effects on fertility.

GLP: yes

Effects on fetal development : Test Type: Pre-natal

Species: Rat, female

Strain: wistar

Application Route: Oral

Dose: 100, 300, 1000 mg/kg bw/day

General Toxicity Maternal: NOAEL: > 1,000 mg/kg body

weight

Developmental Toxicity: NOAEL: 1,000 mg/kg body weight

Method: OECD Test Guideline 414 Result: No effects on fetal development.

GLP: ves

Remarks: Based on data from similar materials

## STOT-single exposure

Causes damage to organs.

#### Components:

### Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Routes of exposure : Ingestion

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

## STOT-repeated exposure

Not classified based on available information.

#### Repeated dose toxicity

## **Components:**

#### glycerol:

Species : Rat, male and female

NOAEL : 4580 mg/kg NOAEL : 4,580 mg/kg

Application Route : Oral Exposure time : 90 d Number of exposures : daily

Dose : 4580 - 25,800 mg/kg/day

GLP : no



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Rat, male and female **Species** 

Application Route Inhalation dust/mist Test atmosphere Exposure time 13 Weeks

Number of exposures 6 hours/day, 5 days/week 33, 165 and 660 mg/m3 Dose **GLP** No information available.

**Species** Rat

**NOAEL** 5040 mg/kg NOAEL 5,040 mg/kg dermal Application Route 45 Weeks Exposure time

8 hours/day, 5 days/week Number of exposures

Dose 0.5-4.0 ml/kg

**GLP** 

Repeated dose toxicity -

Mild eye irritant, Mild respiratory irritant, No skin irritation

Assessment

Methane, 1,1'-sulfinylbis-:

**Species** Monkey, male and female

NOAEL 2970 mg/kg NOAEL 2,970 mg/kg

**Application Route** Oral Exposure time 87 Weeks

Dose 990, 2970, 8910 mg/kg Method **OECD Test Guideline 452** 

**GLP** no

Rat, male and female Species

**NOAEC** 2783 mg/l Application Route : Inhalation Test atmosphere vapor Exposure time 13 Weeks

Dose 0.310, 0.964, 2.783 mg/l Method **OECD Test Guideline 413** 

**GLP** yes

Monkey, male and female **Species** 

NOAEL > 8910 mg/kg **NOAEL** > 8,910 mg/kg**Application Route** Dermal Exposure time 18 Months

990, 2970, 8910 mg/kg bw/da Dose Method **OECD Test Guideline 452** 

**GLP** no

Repeated dose toxicity -

Mild eye irritation, Mild skin irritation

Assessment

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

**Species** Rat **NOAEL** 5 mg/kg



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Application Route : Oral

Method : OECD Test Guideline 421

GLP : yes

### 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Species : Rat, male and female

NOAEL : 250 mg/kg LOAEL : 1,000 mg/kg

Application Route : Oral Exposure time : 90 d Number of exposures : daily

Dose : 62.5, 250, 1000 mg/kg bw Method : OECD Test Guideline 408

GLP : yes

Remarks : Based on data from similar materials

## **Aspiration toxicity**

Not classified based on available information.

#### **Further information**

#### **Components:**

## Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Remarks : Other dangerous properties can not be excluded.

## KAPA Library Quantification DNA Standards 0-6

#### **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 sensitization

## Skin sensitization

Not classified based on available information.

## Respiratory sensitization

Not classified based on available information.

### Germ cell mutagenicity

Not classified based on available information.

### Carcinogenicity

Not classified based on available information.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.



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NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

### 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 Library Quantification Primer Premix (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 sensitization

#### Skin sensitization

Not classified based on available information.

### Respiratory sensitization

Not classified based on available information.

#### Germ cell mutagenicity

Not classified based on available information.

## Carcinogenicity

Not classified based on available information.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

#### 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.



## KAPA Library Quantification Kit (Illumina/LC480)

Version Revision Date: Date of last issue: 10-11-2021 2.0 03-25-2022 Date of first issue: 05-23-2016

## **Aspiration toxicity**

Not classified based on available information.

#### **SECTION 12. ECOLOGICAL INFORMATION**

## 2x SYBR Fast LghtCyc480 MM (5 ml)

## **Ecotoxicity**

### **Components:**

glycerol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l

End point: mortality Exposure time: 96 h Test Type: static test

End point: mortality

GLP: no

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 1,955 mg/l

Exposure time: 48 h Test Type: static test Analytical monitoring: no

GLP: no

Toxicity to algae/aquatic

plants

(Scenedesmus quadricauda (Green algae)): > 10,000 mg/l

End point: Growth rate Exposure time: 8 d Test Type: static test

GLP: no

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10,000 mg/l

End point: Growth rate Exposure time: 16 h Test Type: static test

GLP: No information available.

**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

Methane, 1,1'-sulfinylbis-:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 25,000 mg/l

End point: mortality
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes



## KAPA Library Quantification Kit (Illumina/LC480)

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Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 24,600 mg/l

Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202 GLP: No information available.

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 17,000

mg/l

End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

Toxicity to microorganisms EC50 (activated sludge): 10 - 100 mg/l

> Exposure time: 0.5 h Analytical monitoring: no Method: ISO 8192

GLP: No information available.

**Ecotoxicology Assessment** 

Not expected to adsorb on soil. Toxicity Data on Soil

Other organisms relevant to

the environment

: No data available

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): 462 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.16 mg/l

Exposure time: 11 d

GLP: yes

NOEC (Daphnia magna (Water flea)): 0.03 mg/l

Exposure time: 11 d

GLP: yes

LC50 (Daphnia magna (Water flea)): 1.86 mg/l

Exposure time: 48 h

GLP: yes

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 115

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

GLP: yes



## KAPA Library Quantification Kit (Illumina/LC480)

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**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

1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Toxicity to fish : LC50 (Fish): > 4,000 mg/l

Exposure time: 96 h Test Type: static test Analytical monitoring: no Method: DIN 38412

GLP: no

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 980 mg/l

End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 473

mg/l

End point: Growth rate Exposure time: 48 h Test Type: static test Analytical monitoring: no

Method: OECD Test Guideline 201 GLP: No information available.

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

End point: Respiration inhibition

Exposure time: 3 h
Test Type: static test
Analytical monitoring: no

Method: OECD Test Guideline 209

GLP: yes

**Ecotoxicology Assessment** 

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

Other organisms relevant to

the environment

No data available

Persistence and degradability

**Components:** 

glycerol:

Biodegradability : aerobic

Inoculum: activated sludge



## KAPA Library Quantification Kit (Illumina/LC480)

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Concentration: 226 mg/l Result: Readily biodegradable.

Biodegradation: 94 % Exposure time: 24 h

GLP: no

Methane, 1,1'-sulfinylbis-:

Biodegradability : aerobic

Inoculum: activated sludge Concentration: 2 mg/l

Result: Not readily biodegradable.

Biodegradation: 31 % Exposure time: 28 d

Method: OECD Test Guideline 301D

GLP: yes

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Biodegradability : Remarks: Expected to be biodegradable

1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Biodegradability : aerobic

Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 100 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

GLP: yes

Bioaccumulative potential

**Components:** 

glycerol:

Partition coefficient: n- : log Pow: -1.75 (77 °F / 25 °C)

octanol/water pH: 7.4

Method: OECD Test Guideline 107

GLP: no

Methane, 1,1'-sulfinylbis-:

Partition coefficient: n- : log Pow: -1.35 (68 °F / 20 °C)

octanol/water pH: 7

GLP: No information available.

Methanaminium, N,N,N-trimethyl-, chloride (1:1):

Partition coefficient: n- : Remarks: No data available

octanol/water

1,3-Propanediol, 2-amino-2-(hydroxymethyl)-:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water,

accumulation in organisms is not expected.



## KAPA Library Quantification Kit (Illumina/LC480)

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Partition coefficient: n-

octanol/water

log Pow: -2.31 (68 °F / 20 °C) Method: OECD Test Guideline 107

GLP: no

Mobility in soil

No data available

Other adverse effects

## KAPA Library Quantification DNA Standards 0-6

**Ecotoxicity** 

No data available

Persistence and degradability

No data available

**Bioaccumulative potential** 

No data available

Mobility in soil

No data available

Other adverse effects

## KAPA Library Quantification Primer Premix (10X)

**Ecotoxicity** 

No data available

Persistence and degradability

No data available

**Bioaccumulative potential** 

No data available

Mobility in soil

No data available

Other adverse effects

### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

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

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.



## KAPA Library Quantification Kit (Illumina/LC480)

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#### **SECTION 14. TRANSPORT INFORMATION**

#### International Regulations

#### **UNRTDG**

Not regulated as a dangerous good

#### **IATA-DGR**

Not regulated as a dangerous good

#### **IMDG-Code**

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

### **Domestic regulation**

#### **49 CFR**

Not regulated as a dangerous good

#### Special precautions for user

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

IMDG-Code, ICAO/IATA-DGR

#### **SECTION 15. REGULATORY INFORMATION**

### 2x SYBR Fast LghtCyc480 MM (5 ml)

## **CERCLA Reportable Quantity**

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

glycerol 56-81-5 >= 10 - < 20 % Methane, 1,1'-sulfinylbis- 67-68-5 >= 5 - < 10 %



## KAPA Library Quantification Kit (Illumina/LC480)

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#### **Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Glycine, N,N'-1,2- 60-00-4 >= 0 - < 0.1 %

ethanediylbis[N-(carboxymethyl)-

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table

117.3:

Glycine, N,N'-1,2- 60-00-4 >= 0 - < 0.1 %

ethanediylbis[N-(carboxymethyl)-

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section

307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

## **US State Regulations**

Massachusetts Right To Know

glycerol 56-81-5

Pennsylvania Right To Know

 Water
 7732-18-5

 glycerol
 56-81-5

 Methane, 1,1'-sulfinylbis 67-68-5

**Maine Chemicals of High Concern** 

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern** 

Product does not contain any listed chemicals

**Washington Chemicals of High Concern** 

Product does not contain any listed chemicals

California Permissible Exposure Limits for Chemical Contaminants

glycerol 56-81-5

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

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

2'-Deoxyguanosine 5'-triphosphate trisodium salt

Adenosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-

Thymidine 5'-(tetrahydrogen triphosphate), sodium salt

2'-Deoxycytidine 5'-triphosphate disodium salt

SYBR Green I nucleic acid gel stain

NZIoC : Not in compliance with the inventory

ENCS : Not in compliance with the inventory



## KAPA Library Quantification Kit (Illumina/LC480)

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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 : Not in compliance with the inventory

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

TECI: Not in compliance with the inventory

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## KAPA Library Quantification DNA Standards 0-6

#### **CERCLA Reportable Quantity**

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

## SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

## SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

#### **Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Hydrochloric acid 7647-01-0 >= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Hydrochloric acid 7647-01-0 >= 0 - < 0.1 %



## KAPA Library Quantification Kit (Illumina/LC480)

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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section

This product does not contain any priority pollutants related to the U.S. Clean Water Act

**US State Regulations** 

Massachusetts Right To Know

Hydrochloric acid 7647-01-0

Pennsylvania Right To Know

Water 7732-18-5 Hydrochloric acid 7647-01-0

**Maine Chemicals of High Concern** 

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern** 

Product does not contain any listed chemicals

**Washington Chemicals of High Concern** 

Product does not contain any listed chemicals

The ingredients 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

**TSCA list** 

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## KAPA Library Quantification Primer Premix (10X)



## KAPA Library Quantification Kit (Illumina/LC480)

Version Revision Date: Date of last issue: 10-11-2021 2.0 03-25-2022 Date of first issue: 05-23-2016

#### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

## SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

#### **Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

## **US State Regulations**

#### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

## Pennsylvania Right To Know

Water 7732-18-5

## Maine Chemicals of High Concern

Product does not contain any listed chemicals

#### **Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

### **Washington Chemicals of High Concern**

Product does not contain any listed chemicals

## The ingredients 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.



## KAPA Library Quantification Kit (Illumina/LC480)

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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

### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## 2x SYBR Fast LghtCyc480 MM (5 ml)

## **GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H370 Causes damage to organs.

Precautionary Statements : Prevention:

P260 Do not breathe mist or vapors. P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response:

P307 + P311 IF exposed: Call a POISON CENTER or doctor/

physician.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.



# KAPA Library Quantification Kit (Illumina/LC480)

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## KAPA Library Quantification DNA Standards 0-6

#### **GHS** label elements

Not a hazardous substance or mixture.

## KAPA Library Quantification Primer Premix (10X)

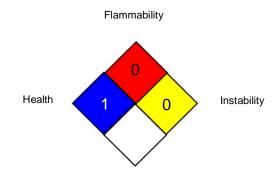
#### **GHS** label elements

Not a hazardous substance or mixture.

#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

## NFPA 704:



Special hazard

#### HMIS® IV:



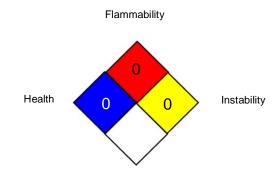
HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.



## KAPA Library Quantification Kit (Illumina/LC480)

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### NFPA 704:



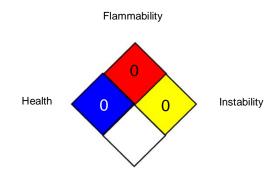
Special hazard

#### HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### NFPA 704:



Special hazard

#### HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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



## KAPA Library Quantification Kit (Illumina/LC480)

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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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 03-25-2022

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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