



Expand HiFi PCR Sys., 2500 u

Version
1.6

Revision Date:
06/24/2016

Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

SECTION 1. IDENTIFICATION

Product name : Expand HiFi PCR Sys., 2500 u
Product code : 11759078001

Manufacturer or supplier's details

Company name of supplier : Roche Diagnostics Deutschland GmbH

Address : Sandhoferstrasse 116
68305 Mannheim

Telephone : +496217590

Telefax : +496217592890

Emergency telephone number:

In case of emergencies: : CHEMTREC +1 703-741-5970 /
1-800-424-9300

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

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.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Expand High Fidelity Enzyme mix

GHS Classification

Not a hazardous substance or mixture.

Substance name : Expand High Fidelity Enzyme mix

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
1,2,3-Propanetriol	56-81-5	>= 30 - < 50
Taq DNA Polymerase	123340-12-5	>= 1 - < 5

HF Buffer, 10x conc. with MgCl2

GHS Classification

Not a hazardous substance or mixture.

Substance name : Expand High Fidelity Buffer(10x) with 15 mM MgCl2

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**Hazardous components**

No hazardous ingredients

HF Buffer, 10x conc. without MgCl₂**GHS Classification**

Not a hazardous substance or mixture.

Substance name : Expand High Fidelity Buffer(10x) without MgCl₂, MBF**Hazardous components**

No hazardous ingredients

MgCl₂ Solution, 25mM**GHS Classification**

Not a hazardous substance or mixture.

Substance name : MgCl₂ Stock Solution, 25mM**Hazardous components**

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

- General advice : 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 on skin, rinse well with water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
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.
Rinse mouth with water.
- Most important symptoms and effects, both acute and delayed : No information available.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

Expand HiFi PCR Sys., 2500 u
Version
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013
SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent product from entering drains.
- Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
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 : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Expand High Fidelity Enzyme mix
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1,2,3-Propanetriol	56-81-5	TWA (Mist)	10 mg/m ³	CA BC OEL
		TWA (Res-	3 mg/m ³	CA BC OEL

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

		pirable mist)		
		TWA (Mist)	10 mg/m3	CA AB OEL
		TWAEV (Mist)	10 mg/m3	CA QC OEL
Taq DNA Polymerase	123340-12-5	IOEL	0.00006 mg/m3	Roche Industrial Hygiene Committee (RIHC)

HF Buffer, 10x conc. with MgCl₂**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

HF Buffer, 10x conc. without MgCl₂**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

MgCl₂ Solution, 25mM**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Engineering measures : No data available**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC 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.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Expand High Fidelity Enzyme mix**

SAFETY DATA SHEET



Expand HiFi PCR Sys., 2500 u

Version
1.6

Revision Date:
06/24/2016

Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

Appearance	: liquid
Colour	: clear, colourless
Odour	: none
Odour Threshold	: No data available
pH	: 8.0 (4 °C)
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)	: The product is not flammable. Does not sustain combustion.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

HF Buffer, 10x conc. with MgCl₂

Appearance	: liquid
Colour	: clear, colourless

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

Odour	:	none
Odour Threshold	:	No data available
pH	:	8.9 (25 °C)
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (liquids)	:	Does not sustain combustion. The product is not flammable.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

HF Buffer, 10x conc. without MgCl₂

Appearance	:	liquid
Colour	:	colourless
Odour	:	none

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

Odour Threshold	:	No data available
pH	:	8.9 (25 °C)
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.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

MgCl₂ Solution, 25mM

Appearance	:	liquid
Colour	:	clear, colourless
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	8.25 - 8.45 (25 °C)
Melting point/range	:	No data available

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

Boiling point/boiling range	: No data available
Flash point	: does not flash
Evaporation rate	: No data available
Flammability (liquids)	: The product is not flammable.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.997 - 1.010 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Conductivity	: 4,500 - 6,000 µS/cm (25 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use. Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: No data available
Incompatible materials	: No data available

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013Hazardous decomposition : No data available
products**SECTION 11. TOXICOLOGICAL INFORMATION*****Expand High Fidelity Enzyme mix*****Acute toxicity**

Not classified based on available information.

Components:**1,2,3-Propanetriol:**Acute oral toxicity : LD50 Oral (Rat): 12,600 mg/kg
LD50 Oral (Mouse): 4,090 mg/kgAcute inhalation toxicity : Acute toxicity estimate: > 30 mg/l
Method: Expert judgement

Acute dermal toxicity : LD50 Dermal (Rabbit): 10,000 mg/kg

Taq DNA Polymerase:Acute oral toxicity : Acute toxicity estimate: > 5,001 mg/kg
Method: Expert judgementAcute inhalation toxicity : Acute toxicity estimate: > 30 mg/l
Method: Expert judgementAcute 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.

Components:**1,2,3-Propanetriol:**

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

Germ cell mutagenicity

Not classified based on available information.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**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.

Components:**1,2,3-Propanetriol:**Repeated dose toxicity - : Mild eye irritant, Mild respiratory irritant, No skin irritation
Assessment**Aspiration toxicity**

Not classified based on available information.

Components:**Taq DNA Polymerase:**

No data available

HF Buffer, 10x conc. with MgCl₂**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.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**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.

HF Buffer, 10x conc. without MgCl₂**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.

MgCl₂ Solution, 25mM**Acute toxicity**

Not classified based on available information.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**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.

SECTION 12. ECOLOGICAL INFORMATION***Expand High Fidelity Enzyme mix*****Ecotoxicity****Components:****1,2,3-Propanetriol:**Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 hToxicity to algae : EC0 (Scenedesmus quadricauda (Green algae)): > 10,000 mg/l
Exposure time: 7 d

Toxicity to fish (Chronic toxicity) : > 1 mg/l

Toxicity to bacteria : EC0 (Pseudomonas putida): > 10,000 mg/l
Exposure time: 16 h**Ecotoxicology Assessment**

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

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**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**Persistence and degradability****Components:****1,2,3-Propanetriol:**

Biodegradability : Remarks: The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.

Bioaccumulative potential**Components:****1,2,3-Propanetriol:**Partition coefficient: n-
octanol/water : log Pow: -2.66**Taq DNA Polymerase:**Partition coefficient: n-
octanol/water : Remarks: No data available**Mobility in soil**

No data available

Other adverse effects***HF Buffer, 10x conc. with MgCl₂*****Ecotoxicity**

No data available

Persistence and degradability

No data available

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**Bioaccumulative potential**

No data available

Mobility in soil

No data available

Other adverse effects

No data available

HF Buffer, 10x conc. without MgCl₂**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

MgCl₂ Solution, 25mM**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**SECTION 14. TRANSPORT INFORMATION****International Regulation****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 for product as supplied.

National Regulations**TDG**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION***Expand High Fidelity Enzyme mix*****WHMIS Classification** : Not controlled.**The components of this product are reported in the following inventories:**

CH INV	Not in compliance with the inventory Taq DNA Polymerase
DSL	This product contains the following components that are not on the Canadian DSL nor NDSL. Taq DNA Polymerase DNA Polymerase
AICS	Not in compliance with the inventory Taq DNA Polymerase DNA Polymerase
NZIoC	On the inventory, or in compliance with the inventory
ENCS	Not in compliance with the inventory Water Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy- 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride Caseins 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- DNA Polymerase
ISHL	Not in compliance with the inventory Water Taq DNA Polymerase Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy- 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride

Expand HiFi PCR Sys., 2500 u
Version
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

	Caseins 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel-DNA Polymerase
KECI	Not in compliance with the inventory Taq DNA Polymerase 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel-DNA Polymerase
PICCS	Not in compliance with the inventory Taq DNA Polymerase DNA Polymerase
IECSC	Not in compliance with the inventory Taq DNA Polymerase DNA Polymerase

Canadian lists

No substances are subject to a Significant New Activity Notification.

HF Buffer, 10x conc. with MgCl₂**WHMIS Classification** : Not controlled.**The components of this product are reported in the following inventories:**

CH INV	On the inventory, or in compliance with the inventory
DSL	All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
NZIoC	On the inventory, or in compliance with the inventory
ENCS	Not in compliance with the inventory Water 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride
ISHL	Not in compliance with the inventory Water 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride
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

Canadian lists

No substances are subject to a Significant New Activity Notification.

HF Buffer, 10x conc. without MgCl₂**WHMIS Classification** : Not controlled.

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**The components of this product are reported in the following inventories:**

CH INV	On the inventory, or in compliance with the inventory
DSL	All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
NZIoC	On the inventory, or in compliance with the inventory
ENCS	Not in compliance with the inventory Water 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride
ISHL	Not in compliance with the inventory Water 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride
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

Canadian lists

No substances are subject to a Significant New Activity Notification.

MgCl₂ Solution, 25mM**WHMIS Classification** : Not controlled.**The components of this product are reported in the following inventories:**

CH INV	On the inventory, or in compliance with the inventory
DSL	All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
NZIoC	On the inventory, or in compliance with the inventory
ENCS	Not in compliance with the inventory Water
ISHL	Not in compliance with the inventory Water
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

Expand HiFi PCR Sys., 2500 uVersion
1.6Revision Date:
06/24/2016Date of last issue: 05/20/2016
Date of first issue: 12/10/2013**Canadian lists**

No substances are subject to a Significant New Activity Notification.

Expand High Fidelity Enzyme mix**GHS label elements**

Not a hazardous substance or mixture.

HF Buffer, 10x conc. with MgCl₂**GHS label elements**

Not a hazardous substance or mixture.

HF Buffer, 10x conc. without MgCl₂**GHS label elements**

Not a hazardous substance or mixture.

MgCl₂ Solution, 25mM**GHS label elements**

Not a hazardous substance or mixture.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Expand HiFi PCR Sys., 2500 u

Version
1.6

Revision Date:
06/24/2016

Date of last issue: 05/20/2016
Date of first issue: 12/10/2013

Revision Date : 06/24/2016

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.

CA / EN / 1511