

SAFETY DATA SHEET



AccuScript PfuUltra II RT-PCR Kit

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

1.1 Product identifier

Product name : AccuScript PfuUltra II RT-PCR Kit

UK (GB) REACH Registration number

Registration number	Legal entity
<input checked="" type="checkbox"/> RNase-Free Water Exempt from REACH: According to the provisions of Article 2(7)(a) and Annex IV of REACH	-

CAS number : RNase-Free Water 7732-18-5
 AccuScript High Fidelity RT Not applicable.
 10X AccuScript RT Reaction Buffer Not applicable.
 PfuUltra II HS DNA Polymerase Not applicable.
 10X PCR Reaction Buffer Not applicable.
 40 mM dNTP Mix (10 mM each dNTP) Not applicable.
 Oligo (dT) Primer Not applicable.
 Random Primers Not applicable.
 100 mM DTT Not applicable.

Part no. (chemical kit) : 600184

Part no. : RNase-Free Water 600164-58
 AccuScript High Fidelity RT 600184-52
 10X AccuScript RT Reaction Buffer 600184-55
 PfuUltra II HS DNA Polymerase 600184-51
 10X PCR Reaction Buffer 600184-53
 40 mM dNTP Mix (10 mM each dNTP) 600166-55
 Oligo (dT) Primer 600166-54
 Random Primers 600166-56
 100 mM DTT 600184-54

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

Identified uses : Analytical reagent.
 RNase-Free Water 3 x 1.2 ml
 AccuScript High Fidelity RT 0.025 ml
 10X AccuScript RT Reaction Buffer 0.05 ml
 PfuUltra II HS DNA Polymerase 0.05 ml
 10X PCR Reaction Buffer 1 ml
 40 mM dNTP Mix (10 mM each dNTP) 0.1 ml
 Oligo (dT) Primer 0.03 ml (3 µg 100 ng/µl)
 Random Primers 0.03 ml (3 µg 100 ng/µl)
 100 mM DTT 0.05 ml

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
 5500 Lakeside Cheadle Royal Business Park,
 Cheadle, Cheshire, SK8 3GR
 United Kingdom
 Tel: +44 (0) 345 712 5292

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

AccuScript PfuUltra II RT-PCR Kit

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

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +44 20 3807 3798

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	:	☑Nase-Free Water	Mono-constituent substance
		AccuScript High Fidelity RT	Mixture
		10X AccuScript RT Reaction Buffer	Mixture
		PfuUltra II HS DNA Polymerase	Mixture
		10X PCR Reaction Buffer	Mixture
		40 mM dNTP Mix (10 mM each dNTP)	Mixture
		Oligo (dT) Primer	Mixture
		Random Primers	Mixture
		100 mM DTT	Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

☑Nase-Free Water	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
AccuScript High Fidelity RT	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
10X AccuScript RT Reaction Buffer	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
PfuUltra II HS DNA Polymerase	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
10X PCR Reaction Buffer	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
40 mM dNTP Mix (10 mM each dNTP)	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
Oligo (dT) Primer	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
Random Primers	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
100 mM DTT	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown toxicity	:	☑AccuScript High Fidelity RT	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
		10X AccuScript RT Reaction Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
		PfuUltra II HS DNA Polymerase	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
		10X PCR Reaction Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
			Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
			Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
			Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
		40 mM dNTP Mix (10 mM each dNTP)	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
			Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
			Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%

AccuScript PfuUltra II RT-PCR Kit

SECTION 2: Hazards identification

	100 mM DTT	unknown acute inhalation toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Ingredients of unknown ecotoxicity	10X PCR Reaction Buffer	Contains 2.8% of components with unknown hazards to the aquatic environment
	40 mM dNTP Mix (10 mM each dNTP)	Contains 5.7% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Reaction Buffer PfuUltra II HS DNA Polymerase 10X PCR Reaction Buffer 40 mM dNTP Mix (10 mM each dNTP) Oligo (dT) Primer Random Primers 100 mM DTT	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word.
Hazard statements	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Reaction Buffer PfuUltra II HS DNA Polymerase 10X PCR Reaction Buffer 40 mM dNTP Mix (10 mM each dNTP) Oligo (dT) Primer Random Primers 100 mM DTT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Precautionary statements

Prevention	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Reaction Buffer PfuUltra II HS DNA Polymerase 10X PCR Reaction Buffer 40 mM dNTP Mix (10 mM each dNTP) Oligo (dT) Primer Random Primers 100 mM DTT	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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AccuScript PfuUltra II RT-PCR Kit

SECTION 2: Hazards identification

Response	: <input checked="" type="checkbox"/> RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Not applicable.
	10X PCR Reaction Buffer	Not applicable.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.
Storage	: <input checked="" type="checkbox"/> RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Not applicable.
	10X PCR Reaction Buffer	Not applicable.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.
Disposal	: <input checked="" type="checkbox"/> RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Not applicable.
	10X PCR Reaction Buffer	Not applicable.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Safety data sheet available on request.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Safety data sheet available on request.
	10X PCR Reaction Buffer	Safety data sheet available on request.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: <input checked="" type="checkbox"/> RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Not applicable.
	10X PCR Reaction Buffer	Not applicable.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.

AccuScript PfuUltra II RT-PCR Kit

SECTION 2: Hazards identification

Oligo (dT) Primer Not applicable.
 Random Primers Not applicable.
 100 mM DTT Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : RNase-Free Water Not applicable.
 AccuScript High Fidelity RT Not applicable.
 10X AccuScript RT Reaction Buffer Not applicable.
 PfuUltra II HS DNA Polymerase Not applicable.
 10X PCR Reaction Buffer Not applicable.
 40 mM dNTP Mix (10 mM each dNTP) Not applicable.
 Oligo (dT) Primer Not applicable.
 Random Primers Not applicable.
 100 mM DTT Not applicable.

Tactile warning of danger : RNase-Free Water Not applicable.
 AccuScript High Fidelity RT Not applicable.
 10X AccuScript RT Reaction Buffer Not applicable.
 PfuUltra II HS DNA Polymerase Not applicable.
 10X PCR Reaction Buffer Not applicable.
 40 mM dNTP Mix (10 mM each dNTP) Not applicable.
 Oligo (dT) Primer Not applicable.
 Random Primers Not applicable.
 100 mM DTT Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

	PBT	P	B	T	vPvB	vP	vB
<input checked="" type="checkbox"/> RNase-Free Water							
Not applicable (Inorganic)		N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

AccuScript High Fidelity RT This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 10X AccuScript RT Reaction Buffer This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 PfuUltra II HS DNA Polymerase This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 10X PCR Reaction Buffer This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 40 mM dNTP Mix (10 mM each dNTP) This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 Oligo (dT) Primer This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 Random Primers This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 100 mM DTT This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

AccuScript PfuUltra II RT-PCR Kit

SECTION 2: Hazards identification

Other hazards which do not result in classification	☑ RNase-Free Water	None known.
	AccuScript High Fidelity RT	None known.
	10X AccuScript RT Reaction Buffer	None known.
	PfuUltra II HS DNA Polymerase	None known.
	10X PCR Reaction Buffer	None known.
	40 mM dNTP Mix (10 mM each dNTP)	None known.
	Oligo (dT) Primer	None known.
	Random Primers	None known.
	100 mM DTT	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	☑ RNase-Free Water	Mono-constituent substance
	AccuScript High Fidelity RT	Mixture
	10X AccuScript RT Reaction Buffer	Mixture
	PfuUltra II HS DNA Polymerase	Mixture
	10X PCR Reaction Buffer	Mixture
	40 mM dNTP Mix (10 mM each dNTP)	Mixture
	Oligo (dT) Primer	Mixture
	Random Primers	Mixture
	100 mM DTT	Mixture

Product/ingredient name	Identifiers	%	Classification	Type
☑ RNase-Free Water water	UK (GB) REACH #: Annex IV REACH #: Annex IV EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	[1]
AccuScript High Fidelity RT Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[1]
PfuUltra II HS DNA Polymerase Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[1]
10X PCR Reaction Buffer Trometamol	EC: 201-064-4 CAS: 77-86-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
1-Propanaminium, 2-hydroxy-n,n-dimethyl-3-sulfo-n-3-(3.alpha.,5.beta.,7.alpha.,12.alpha.)-3,7,12-trihydroxy-24-oxocholan-24-ylaminopropyl-, inner salt	CAS: 82473-24-3	≤2.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
1-O-Octyl-β-D-glucopyranoside	EC: 249-887-8 CAS: 29836-26-8	≤1.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	EC: 222-468-7 CAS: 3483-12-3	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3,	[1]

AccuScript PfuUltra II RT-PCR Kit

SECTION 3: Composition/information on ingredients

			H412 See Section 16 for the full text of the H statements declared above.
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There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

☑Nase-Free Water	[1] Constituent
AccuScript High Fidelity RT	[1] Substance with a workplace exposure limit
PfuUltra II HS DNA Polymerase	[1] Substance with a workplace exposure limit
10X PCR Reaction Buffer	[1] Substance classified with a health or environmental hazard
100 mM DTT	[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: ☑Nase-Free Water	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	AccuScript High Fidelity RT	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X AccuScript RT Reaction Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	PfuUltra II HS DNA Polymerase	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X PCR Reaction Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	40 mM dNTP Mix (10 mM each dNTP)	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Oligo (dT) Primer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Random Primers	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	100 mM DTT	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Inhalation	: ☑Nase-Free Water
AccuScript High Fidelity RT		Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
10X AccuScript RT Reaction Buffer		Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
PfuUltra II HS DNA Polymerase		Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
10X PCR Reaction Buffer		Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a

AccuScript PfuUltra II RT-PCR Kit


SECTION 4: First aid measures

fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact

:  **Nase-Free Water**

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

40 mM dNTP Mix (10 mM each dNTP)

Oligo (dT) Primer

Random Primers

100 mM DTT

AccuScript High Fidelity RT

10X AccuScript RT Reaction Buffer

PfuUltra II HS DNA Polymerase

10X PCR Reaction Buffer

40 mM dNTP Mix (10 mM each dNTP)

Oligo (dT) Primer

Random Primers

100 mM DTT

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.


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Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion

:  **Nase-Free Water**

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

AccuScript High Fidelity RT

10X AccuScript RT Reaction Buffer

PfuUltra II HS DNA Polymerase

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

SECTION 4: First aid measures

10X PCR Reaction Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
40 mM dNTP Mix (10 mM each dNTP)	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Oligo (dT) Primer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Random Primers	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
100 mM DTT	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders :

Nase-Free Water	No action shall be taken involving any personal risk or without suitable training.
AccuScript High Fidelity RT	No action shall be taken involving any personal risk or without suitable training.
10X AccuScript RT Reaction Buffer	No action shall be taken involving any personal risk or without suitable training.
PfuUltra II HS DNA Polymerase	No action shall be taken involving any personal risk or without suitable training.
10X PCR Reaction Buffer	No action shall be taken involving any personal risk or without suitable training.
40 mM dNTP Mix (10 mM each dNTP)	No action shall be taken involving any personal risk or without suitable training.
Oligo (dT) Primer	No action shall be taken involving any personal risk or without suitable training.
Random Primers	No action shall be taken involving any personal risk or without suitable training.
100 mM DTT	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact :

Nase-Free Water	No specific data.
AccuScript High Fidelity RT	No specific data.
10X AccuScript RT Reaction Buffer	No specific data.
PfuUltra II HS DNA Polymerase	No specific data.
10X PCR Reaction Buffer	No specific data.
40 mM dNTP Mix (10 mM each dNTP)	No specific data.
Oligo (dT) Primer	No specific data.
Random Primers	No specific data.
100 mM DTT	No specific data.

AccuScript PfuUltra II RT-PCR Kit

SECTION 4: First aid measures

Inhalation	: <input checked="" type="checkbox"/> Nase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Reaction Buffer	No specific data.
	PfuUltra II HS DNA Polymerase	No specific data.
	10X PCR Reaction Buffer	No specific data.
	40 mM dNTP Mix (10 mM each dNTP)	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM DTT	No specific data.
Skin contact	: <input checked="" type="checkbox"/> Nase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Reaction Buffer	No specific data.
	PfuUltra II HS DNA Polymerase	No specific data.
	10X PCR Reaction Buffer	No specific data.
	40 mM dNTP Mix (10 mM each dNTP)	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM DTT	No specific data.
Ingestion	: <input checked="" type="checkbox"/> Nase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Reaction Buffer	No specific data.
	PfuUltra II HS DNA Polymerase	No specific data.
	10X PCR Reaction Buffer	No specific data.
	40 mM dNTP Mix (10 mM each dNTP)	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM DTT	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: <input checked="" type="checkbox"/> Nase-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	AccuScript High Fidelity RT	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X AccuScript RT Reaction Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	PfuUltra II HS DNA Polymerase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X PCR Reaction Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	40 mM dNTP Mix (10 mM each dNTP)	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Oligo (dT) Primer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Random Primers	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	100 mM DTT	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

AccuScript PfuUltra II RT-PCR Kit

SECTION 4: First aid measures

Specific treatments	:	☑️Nase-Free Water	No specific treatment.
		AccuScript High Fidelity RT	No specific treatment.
		10X AccuScript RT Reaction Buffer	No specific treatment.
		PfuUltra II HS DNA Polymerase	No specific treatment.
		10X PCR Reaction Buffer	No specific treatment.
		40 mM dNTP Mix (10 mM each dNTP)	No specific treatment.
		Oligo (dT) Primer	No specific treatment.
		Random Primers	No specific treatment.
		100 mM DTT	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	☑️Nase-Free Water	Use an extinguishing agent suitable for the surrounding fire.
		AccuScript High Fidelity RT	Use an extinguishing agent suitable for the surrounding fire.
		10X AccuScript RT Reaction Buffer	Use an extinguishing agent suitable for the surrounding fire.
		PfuUltra II HS DNA Polymerase	Use an extinguishing agent suitable for the surrounding fire.
		10X PCR Reaction Buffer	Use an extinguishing agent suitable for the surrounding fire.
		40 mM dNTP Mix (10 mM each dNTP)	Use an extinguishing agent suitable for the surrounding fire.
		Oligo (dT) Primer	Use an extinguishing agent suitable for the surrounding fire.
		Random Primers	Use an extinguishing agent suitable for the surrounding fire.
		100 mM DTT	Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media	:	☑️Nase-Free Water	None known.
		AccuScript High Fidelity RT	None known.
		10X AccuScript RT Reaction Buffer	None known.
		PfuUltra II HS DNA Polymerase	None known.
		10X PCR Reaction Buffer	None known.
		40 mM dNTP Mix (10 mM each dNTP)	None known.
		Oligo (dT) Primer	None known.
		Random Primers	None known.
		100 mM DTT	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	☑️Nase-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
		AccuScript High Fidelity RT	In a fire or if heated, a pressure increase will occur and the container may burst.
		10X AccuScript RT Reaction Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		PfuUltra II HS DNA Polymerase	In a fire or if heated, a pressure increase will occur and the container may burst.
		10X PCR Reaction Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		40 mM dNTP Mix (10 mM each dNTP)	In a fire or if heated, a pressure increase will occur and the container may burst.
		Oligo (dT) Primer	In a fire or if heated, a pressure increase will occur and the container may burst.
		Random Primers	In a fire or if heated, a pressure increase will occur and the container may burst.
		100 mM DTT	In a fire or if heated, a pressure increase will occur and the container may burst.

AccuScript PfuUltra II RT-PCR Kit

SECTION 5: Firefighting measures


Hazardous combustion products	:	<input checked="" type="checkbox"/> RNase-Free Water	No specific data.
		AccuScript High Fidelity RT	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		10X AccuScript RT Reaction Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
		PfuUltra II HS DNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		10X PCR Reaction Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
		40 mM dNTP Mix (10 mM each dNTP)	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM DTT	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	<input checked="" type="checkbox"/> RNase-Free Water	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		AccuScript High Fidelity RT	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		10X AccuScript RT Reaction Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		PfuUltra II HS DNA Polymerase	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		10X PCR Reaction Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		40 mM dNTP Mix (10 mM each dNTP)	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		Oligo (dT) Primer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		Random Primers	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		100 mM DTT	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.


AccuScript PfuUltra II RT-PCR Kit

SECTION 5: Firefighting measures

Special protective equipment for fire-fighters	:  N ase-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	AccuScript High Fidelity RT	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	10X AccuScript RT Reaction Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	PfuUltra II HS DNA Polymerase	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	10X PCR Reaction Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	40 mM dNTP Mix (10 mM each dNTP)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Oligo (dT) Primer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Random Primers	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	100 mM DTT	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures


6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:  N ase-Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	AccuScript High Fidelity RT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	10X AccuScript RT Reaction Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	PfuUltra II HS DNA Polymerase	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	10X PCR Reaction Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	40 mM dNTP Mix (10 mM each dNTP)	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Oligo (dT) Primer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do


AccuScript PfuUltra II RT-PCR Kit

SECTION 6: Accidental release measures

For emergency responders

Random Primers	not touch or walk through spilt material. Put on appropriate personal protective equipment.
100 mM DTT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
:  Nase-Free Water	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AccuScript High Fidelity RT	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10X AccuScript RT Reaction Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
PfuUltra II HS DNA Polymerase	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10X PCR Reaction Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
40 mM dNTP Mix (10 mM each dNTP)	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Oligo (dT) Primer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Random Primers	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
100 mM DTT	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

:  Nase-Free Water	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AccuScript High Fidelity RT	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
10X AccuScript RT Reaction Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
PfuUltra II HS DNA Polymerase	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant

SECTION 6: Accidental release measures

	authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
10X PCR Reaction Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
40 mM dNTP Mix (10 mM each dNTP)	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Oligo (dT) Primer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Random Primers	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
100 mM DTT	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : RNase-Free Water

	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
AccuScript High Fidelity RT	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
10X AccuScript RT Reaction Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
PfuUltra II HS DNA Polymerase	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
10X PCR Reaction Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
40 mM dNTP Mix (10 mM each dNTP)	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Oligo (dT) Primer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Random Primers	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose

AccuScript PfuUltra II RT-PCR Kit

SECTION 6: Accidental release measures

100 mM DTT of via a licensed waste disposal contractor.
 Stop leak if without risk. Move containers from spill area.
 Dilute with water and mop up if water-soluble. Alternatively,
 or if water-insoluble, absorb with an inert dry material and
 place in an appropriate waste disposal container. Dispose
 of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : **RN**Nase-Free Water Put on appropriate personal protective equipment (see Section 8).
 AccuScript High Fidelity RT Put on appropriate personal protective equipment (see Section 8).
 10X AccuScript RT Reaction Buffer Put on appropriate personal protective equipment (see Section 8).
 PfuUltra II HS DNA Polymerase Put on appropriate personal protective equipment (see Section 8).
 10X PCR Reaction Buffer Put on appropriate personal protective equipment (see Section 8).
 40 mM dNTP Mix (10 mM each dNTP) Put on appropriate personal protective equipment (see Section 8).
 Oligo (dT) Primer Put on appropriate personal protective equipment (see Section 8).
 Random Primers Put on appropriate personal protective equipment (see Section 8).
 100 mM DTT Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : **RN**Nase-Free Water Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
 AccuScript High Fidelity RT Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
 10X AccuScript RT Reaction Buffer Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
 PfuUltra II HS DNA Polymerase Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
 10X PCR Reaction Buffer Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
 40 mM dNTP Mix (10 Eating, drinking and smoking should be prohibited in areas

SECTION 7: Handling and storage

mM each dNTP)	where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Oligo (dT) Primer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Random Primers	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
100 mM DTT	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage

: RNase-Free Water	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
AccuScript High Fidelity RT	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
10X AccuScript RT Reaction Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
PfuUltra II HS DNA Polymerase	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental

SECTION 7: Handling and storage

	contamination. See Section 10 for incompatible materials before handling or use.
10X PCR Reaction Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
40 mM dNTP Mix (10 mM each dNTP)	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Oligo (dT) Primer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Random Primers	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
100 mM DTT	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

RNAse-Free Water	Industrial applications, Professional applications.
AccuScript High Fidelity RT	Industrial applications, Professional applications.
10X AccuScript RT Reaction Buffer	Industrial applications, Professional applications.
PfuUltra II HS DNA Polymerase	Industrial applications, Professional applications.
10X PCR Reaction Buffer	Industrial applications, Professional applications.

AccuScript PfuUltra II RT-PCR Kit

SECTION 7: Handling and storage

	40 mM dNTP Mix (10 mM each dNTP)	Industrial applications, Professional applications.
	Oligo (dT) Primer	Industrial applications, Professional applications.
	Random Primers	Industrial applications, Professional applications.
	100 mM DTT	Industrial applications, Professional applications.
Industrial sector specific solutions	RNAse-Free Water	Not available.
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Reaction Buffer	Not available.
	PfuUltra II HS DNA Polymerase	Not available.
	10X PCR Reaction Buffer	Not available.
	40 mM dNTP Mix (10 mM each dNTP)	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
AccuScript High Fidelity RT Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
PfuUltra II HS DNA Polymerase Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
10X PCR Reaction Buffer Trometamol	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	29 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	117.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	☑Nase-Free Water	Liquid.		
		AccuScript High Fidelity RT	Liquid.		
		10X AccuScript RT Reaction Buffer	Liquid.		
		PfuUltra II HS DNA Polymerase	Liquid.		
		10X PCR Reaction Buffer	Liquid.		
		40 mM dNTP Mix (10 mM each dNTP)	Liquid.		
		Oligo (dT) Primer	Liquid.		
		Random Primers	Liquid.		
		100 mM DTT	Liquid.		
		Colour	:	☑Nase-Free Water	Colourless.
				AccuScript High Fidelity RT	Not available.
				10X AccuScript RT Reaction Buffer	Not available.
				PfuUltra II HS DNA Polymerase	Not available.
				10X PCR Reaction Buffer	Not available.
				40 mM dNTP Mix (10 mM each dNTP)	Not available.
Oligo (dT) Primer	Not available.				
Random Primers	Not available.				
100 mM DTT	Not available.				

AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

Odour	:	RNase-Free Water	Odourless.
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Reaction Buffer	Not available.
		PfuUltra II HS DNA Polymerase	Not available.
		10X PCR Reaction Buffer	Not available.
		40 mM dNTP Mix (10 mM each dNTP)	Not available.
		Oligo (dT) Primer	Not available.
		Random Primers	Not available.
		100 mM DTT	Not available.
	Odour threshold	:	RNase-Free Water
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Reaction Buffer	Not available.
		PfuUltra II HS DNA Polymerase	Not available.
		10X PCR Reaction Buffer	Not available.
		40 mM dNTP Mix (10 mM each dNTP)	Not available.
		Oligo (dT) Primer	Not available.
		Random Primers	Not available.
		100 mM DTT	Not available.
Melting point/freezing point		:	RNase-Free Water
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Reaction Buffer	Not available.
		PfuUltra II HS DNA Polymerase	Not available.
		10X PCR Reaction Buffer	Not available.
		40 mM dNTP Mix (10 mM each dNTP)	Not available.
		Oligo (dT) Primer	0°C
		Random Primers	0°C
		100 mM DTT	0°C
	Initial boiling point and boiling range	:	RNase-Free Water
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Reaction Buffer	Not available.
		PfuUltra II HS DNA Polymerase	Not available.
		10X PCR Reaction Buffer	Not available.
		40 mM dNTP Mix (10 mM each dNTP)	Not available.
		Oligo (dT) Primer	100°C
		Random Primers	100°C
		100 mM DTT	100°C
Flammability		:	RNase-Free Water
		AccuScript High Fidelity RT	Not applicable.
		10X AccuScript RT Reaction Buffer	Not applicable.
		PfuUltra II HS DNA Polymerase	Not applicable.
		10X PCR Reaction Buffer	Not applicable.
		40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
		Oligo (dT) Primer	Not applicable.

AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits :

Random Primers	Not applicable.
100 mM DTT	Not applicable.
<input checked="" type="checkbox"/> Nase-Free Water	Not available.
AccuScript High Fidelity RT	Not available.
10X AccuScript RT	Not available.
Reaction Buffer	
PfuUltra II HS DNA Polymerase	Not available.
10X PCR Reaction Buffer	Not available.
40 mM dNTP Mix (10 mM each dNTP)	Not available.
Oligo (dT) Primer	Not available.
Random Primers	Not available.
100 mM DTT	Not available.

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
<input checked="" type="checkbox"/> AccuScript High Fidelity RT				
glycerol	-	-	177	-
PfuUltra II HS DNA Polymerase				
glycerol	-	-	177	-
100 mM DTT				
(R*,R*)-1,4-dimercaptobutane-2,3-diol	>110	-	-	-

Auto-ignition temperature :

<input checked="" type="checkbox"/> Nase-Free Water	Not applicable.
---	-----------------

Ingredient name	°C	Method
<input checked="" type="checkbox"/> AccuScript High Fidelity RT		
glycerol	370	-
PfuUltra II HS DNA Polymerase		
glycerol	370	-

Decomposition temperature :

<input checked="" type="checkbox"/> Nase-Free Water	Not available.
AccuScript High Fidelity RT	Not available.
10X AccuScript RT	Not available.
Reaction Buffer	
PfuUltra II HS DNA Polymerase	Not available.
10X PCR Reaction Buffer	Not available.
40 mM dNTP Mix (10 mM each dNTP)	Not available.
Oligo (dT) Primer	Not available.
Random Primers	Not available.
100 mM DTT	Not available.

pH :

<input checked="" type="checkbox"/> Nase-Free Water	7
AccuScript High Fidelity RT	8
10X AccuScript RT	8.3
Reaction Buffer	
PfuUltra II HS DNA Polymerase	8.2

AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

		10X PCR Reaction Buffer	10
		40 mM dNTP Mix (10 mM each dNTP)	7.5
		Oligo (dT) Primer	7.5
		Random Primers	7.5
		100 mM DTT	Not available.
Viscosity	:	RNase-Free Water	Not available.
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Reaction Buffer	Not available.
		PfuUltra II HS DNA Polymerase	Not available.
		10X PCR Reaction Buffer	Not available.
		40 mM dNTP Mix (10 mM each dNTP)	Not available.
		Oligo (dT) Primer	Not available.
		Random Primers	Not available.
		100 mM DTT	Not available.

Solubility(ies)	:	Media	Result
		RNase-Free Water water	Soluble
		AccuScript High Fidelity RT water	Soluble
		10X AccuScript RT Reaction Buffer water	Soluble
		PfuUltra II HS DNA Polymerase water	Soluble
		10X PCR Reaction Buffer water	Soluble
		40 mM dNTP Mix (10 mM each dNTP) water	Soluble
		Oligo (dT) Primer water	Soluble
		Random Primers water	Soluble
		100 mM DTT water	Soluble

Partition coefficient: n-octanol/water	:	RNase-Free Water	-1.38
		AccuScript High Fidelity RT	Not applicable.
		10X AccuScript RT Reaction Buffer	Not applicable.
		PfuUltra II HS DNA Polymerase	Not applicable.
		10X PCR Reaction Buffer	Not applicable.
		40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
		Oligo (dT) Primer	Not applicable.
		Random Primers	Not applicable.
		100 mM DTT	Not applicable.

Vapour pressure	:	RNase-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C]
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AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
AccuScript High Fidelity RT						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
10X AccuScript RT Reaction Buffer						
water	17.5	2.3	-	92.258	12.3	-
PfuUltra II HS DNA Polymerase						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
10X PCR Reaction Buffer						
water	17.5	2.3	-	92.258	12.3	-
trometamol	<0.00075006	<0.0001	-	-	-	-
40 mM dNTP Mix (10 mM each dNTP)						
water	17.5	2.3	-	92.258	12.3	-
Oligo (dT) Primer						
water	17.5	2.3	-	92.258	12.3	-
Random Primers						
water	17.5	2.3	-	92.258	12.3	-
100 mM DTT						
water	17.5	2.3	-	92.258	12.3	-

Evaporation rate : **N**ase-Free Water Not available.
 AccuScript High Fidelity RT Not available.
 10X AccuScript RT Reaction Buffer Not available.
 PfuUltra II HS DNA Polymerase Not available.
 10X PCR Reaction Buffer Not available.
 40 mM dNTP Mix (10 mM each dNTP) Not available.
 Oligo (dT) Primer Not available.
 Random Primers Not available.

AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

	100 mM DTT	Not available.
Relative density	: <input checked="" type="checkbox"/> Nase-Free Water	1
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Reaction Buffer	Not available.
	PfuUltra II HS DNA Polymerase	Not available.
	10X PCR Reaction Buffer	Not available.
	40 mM dNTP Mix (10 mM each dNTP)	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.
Vapour density	: <input checked="" type="checkbox"/> Nase-Free Water	0.62 [Air = 1]
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Reaction Buffer	Not available.
	PfuUltra II HS DNA Polymerase	Not available.
	10X PCR Reaction Buffer	Not available.
	40 mM dNTP Mix (10 mM each dNTP)	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.
Explosive properties	: <input checked="" type="checkbox"/> Nase-Free Water	Not available.
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Reaction Buffer	Not available.
	PfuUltra II HS DNA Polymerase	Not available.
	10X PCR Reaction Buffer	Not available.
	40 mM dNTP Mix (10 mM each dNTP)	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.
Oxidising properties	: <input checked="" type="checkbox"/> Nase-Free Water	Not available.
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Reaction Buffer	Not available.
	PfuUltra II HS DNA Polymerase	Not available.
	10X PCR Reaction Buffer	Not available.
	40 mM dNTP Mix (10 mM each dNTP)	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.

Particle characteristics

Median particle size	: <input checked="" type="checkbox"/> Nase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Reaction Buffer	Not applicable.
	PfuUltra II HS DNA Polymerase	Not applicable.
	10X PCR Reaction Buffer	Not applicable.
	40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.

AccuScript PfuUltra II RT-PCR Kit

SECTION 9: Physical and chemical properties

mM each dNTP)	
Oligo (dT) Primer	Not applicable.
Random Primers	Not applicable.
100 mM DTT	Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: <input checked="" type="checkbox"/> N ase-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	AccuScript High Fidelity RT	No specific test data related to reactivity available for this product or its ingredients.
	10X AccuScript RT Reaction Buffer	No specific test data related to reactivity available for this product or its ingredients.
	PfuUltra II HS DNA Polymerase	No specific test data related to reactivity available for this product or its ingredients.
	10X PCR Reaction Buffer	No specific test data related to reactivity available for this product or its ingredients.
	40 mM dNTP Mix (10 mM each dNTP)	No specific test data related to reactivity available for this product or its ingredients.
	Oligo (dT) Primer	No specific test data related to reactivity available for this product or its ingredients.
	Random Primers	No specific test data related to reactivity available for this product or its ingredients.
	100 mM DTT	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability	: <input checked="" type="checkbox"/> N ase-Free Water	The product is stable.
	AccuScript High Fidelity RT	The product is stable.
	10X AccuScript RT Reaction Buffer	The product is stable.
	PfuUltra II HS DNA Polymerase	The product is stable.
	10X PCR Reaction Buffer	The product is stable.
	40 mM dNTP Mix (10 mM each dNTP)	The product is stable.
	Oligo (dT) Primer	The product is stable.
	Random Primers	The product is stable.
	100 mM DTT	The product is stable.

10.3 Possibility of hazardous reactions	: <input checked="" type="checkbox"/> N ase-Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.
	AccuScript High Fidelity RT	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X AccuScript RT Reaction Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	PfuUltra II HS DNA Polymerase	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X PCR Reaction Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	40 mM dNTP Mix (10 mM each dNTP)	Under normal conditions of storage and use, hazardous reactions will not occur.
	Oligo (dT) Primer	Under normal conditions of storage and use, hazardous reactions will not occur.
	Random Primers	Under normal conditions of storage and use, hazardous reactions will not occur.
	100 mM DTT	Under normal conditions of storage and use, hazardous reactions will not occur.

AccuScript PfuUltra II RT-PCR Kit

SECTION 10: Stability and reactivity

10.4 Conditions to avoid	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Nase-Free Water No specific data. AccuScript High Fidelity RT No specific data. 10X AccuScript RT Reaction Buffer No specific data. PfuUltra II HS DNA Polymerase No specific data. 10X PCR Reaction Buffer No specific data. 40 mM dNTP Mix (10 mM each dNTP) No specific data. Oligo (dT) Primer No specific data. Random Primers No specific data. 100 mM DTT No specific data.
10.5 Incompatible materials	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Nase-Free Water May react or be incompatible with oxidising materials. AccuScript High Fidelity RT May react or be incompatible with oxidising materials. 10X AccuScript RT Reaction Buffer May react or be incompatible with oxidising materials. PfuUltra II HS DNA Polymerase May react or be incompatible with oxidising materials. 10X PCR Reaction Buffer May react or be incompatible with oxidising materials. 40 mM dNTP Mix (10 mM each dNTP) May react or be incompatible with oxidising materials. Oligo (dT) Primer May react or be incompatible with oxidising materials. Random Primers May react or be incompatible with oxidising materials. 100 mM DTT May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Nase-Free Water Under normal conditions of storage and use, hazardous decomposition products should not be produced. AccuScript High Fidelity RT Under normal conditions of storage and use, hazardous decomposition products should not be produced. 10X AccuScript RT Reaction Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced. PfuUltra II HS DNA Polymerase Under normal conditions of storage and use, hazardous decomposition products should not be produced. 10X PCR Reaction Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced. 40 mM dNTP Mix (10 mM each dNTP) Under normal conditions of storage and use, hazardous decomposition products should not be produced. Oligo (dT) Primer Under normal conditions of storage and use, hazardous decomposition products should not be produced. Random Primers Under normal conditions of storage and use, hazardous decomposition products should not be produced. 100 mM DTT Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> AccuScript High Fidelity RT Glycerol	LD50 Oral	Rat	12600 mg/kg	-
PfuUltra II HS DNA Polymerase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X PCR Reaction Buffer Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-

AccuScript PfuUltra II RT-PCR Kit

SECTION 11: Toxicological information

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
AccuScript High Fidelity RT Glycerol	12600	N/A	N/A	N/A	N/A
PfuUltra II HS DNA Polymerase Glycerol	12600	N/A	N/A	N/A	N/A
100 mM DTT 100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	32467.5 500	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
AccuScript High Fidelity RT Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
PfuUltra II HS DNA Polymerase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
10X PCR Reaction Buffer Trometamol	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
10X PCR Reaction Buffer 1-Propanaminium, 2-hydroxy-n,n-dimethyl-3-sulfo-n-3-(3.alpha.,5.beta.,7.alpha.,12.alpha.)-3,7,12-trihydroxy-24-oxocholan-24-ylaminopropyl-, inner salt 1-O-Octyl-β-D-glucopyranoside	Category 3	-	Respiratory tract irritation
	Category 3	-	Respiratory tract irritation
100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

AccuScript PfuUltra II RT-PCR Kit

SECTION 11: Toxicological information

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

: <input checked="" type="checkbox"/> Nase-Free Water	Not available.
AccuScript High Fidelity RT	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10X AccuScript RT Reaction Buffer	Not available.
PfuUltra II HS DNA Polymerase	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10X PCR Reaction Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
40 mM dNTP Mix (10 mM each dNTP)	Not available.
Oligo (dT) Primer	Not available.
Random Primers	Not available.
100 mM DTT	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation

: <input checked="" type="checkbox"/> Nase-Free Water	No known significant effects or critical hazards.
AccuScript High Fidelity RT	No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer	No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase	No known significant effects or critical hazards.
10X PCR Reaction Buffer	No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP)	No known significant effects or critical hazards.
Oligo (dT) Primer	No known significant effects or critical hazards.
Random Primers	No known significant effects or critical hazards.
100 mM DTT	No known significant effects or critical hazards.

Ingestion

: <input checked="" type="checkbox"/> Nase-Free Water	No known significant effects or critical hazards.
AccuScript High Fidelity RT	No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer	No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase	No known significant effects or critical hazards.
10X PCR Reaction Buffer	No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP)	No known significant effects or critical hazards.
Oligo (dT) Primer	No known significant effects or critical hazards.
Random Primers	No known significant effects or critical hazards.
100 mM DTT	No known significant effects or critical hazards.

Skin contact

: <input checked="" type="checkbox"/> Nase-Free Water	No known significant effects or critical hazards.
AccuScript High Fidelity RT	No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer	No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase	No known significant effects or critical hazards.
10X PCR Reaction Buffer	No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP)	No known significant effects or critical hazards.
Oligo (dT) Primer	No known significant effects or critical hazards.
Random Primers	No known significant effects or critical hazards.
100 mM DTT	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Eye contact	:	<input checked="" type="checkbox"/> Nose-Free Water	No known significant effects or critical hazards.
		AccuScript High Fidelity RT	No known significant effects or critical hazards.
		10X AccuScript RT Reaction Buffer	No known significant effects or critical hazards.
		PfuUltra II HS DNA Polymerase	No known significant effects or critical hazards.
		10X PCR Reaction Buffer	No known significant effects or critical hazards.
		40 mM dNTP Mix (10 mM each dNTP)	No known significant effects or critical hazards.
		Oligo (dT) Primer	No known significant effects or critical hazards.
		Random Primers	No known significant effects or critical hazards.
		100 mM DTT	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	<input checked="" type="checkbox"/> Nose-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Reaction Buffer	No specific data.
		PfuUltra II HS DNA Polymerase	No specific data.
		10X PCR Reaction Buffer	No specific data.
		40 mM dNTP Mix (10 mM each dNTP)	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM DTT	No specific data.

Ingestion	:	<input checked="" type="checkbox"/> Nose-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Reaction Buffer	No specific data.
		PfuUltra II HS DNA Polymerase	No specific data.
		10X PCR Reaction Buffer	No specific data.
		40 mM dNTP Mix (10 mM each dNTP)	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM DTT	No specific data.

Skin contact	:	<input checked="" type="checkbox"/> Nose-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Reaction Buffer	No specific data.
		PfuUltra II HS DNA Polymerase	No specific data.
		10X PCR Reaction Buffer	No specific data.
		40 mM dNTP Mix (10 mM each dNTP)	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM DTT	No specific data.

Eye contact	:	<input checked="" type="checkbox"/> Nose-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Reaction Buffer	No specific data.
		PfuUltra II HS DNA Polymerase	No specific data.
		10X PCR Reaction Buffer	No specific data.
		40 mM dNTP Mix (10 mM each dNTP)	No specific data.

AccuScript PfuUltra II RT-PCR Kit

SECTION 11: Toxicological information

Oligo (dT) Primer	No specific data.
Random Primers	No specific data.
100 mM DTT	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : **Nase-Free Water** No known significant effects or critical hazards.
AccuScript High Fidelity RT No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase No known significant effects or critical hazards.
10X PCR Reaction Buffer No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP) No known significant effects or critical hazards.
Oligo (dT) Primer No known significant effects or critical hazards.
Random Primers No known significant effects or critical hazards.
100 mM DTT No known significant effects or critical hazards.

Carcinogenicity : **Nase-Free Water** No known significant effects or critical hazards.
AccuScript High Fidelity RT No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase No known significant effects or critical hazards.
10X PCR Reaction Buffer No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP) No known significant effects or critical hazards.
Oligo (dT) Primer No known significant effects or critical hazards.
Random Primers No known significant effects or critical hazards.
100 mM DTT No known significant effects or critical hazards.

Mutagenicity : **Nase-Free Water** No known significant effects or critical hazards.
AccuScript High Fidelity RT No known significant effects or critical hazards.
10X AccuScript RT Reaction Buffer No known significant effects or critical hazards.
PfuUltra II HS DNA Polymerase No known significant effects or critical hazards.
10X PCR Reaction Buffer No known significant effects or critical hazards.
40 mM dNTP Mix (10 mM each dNTP) No known significant effects or critical hazards.
Oligo (dT) Primer No known significant effects or critical hazards.
Random Primers No known significant effects or critical hazards.
100 mM DTT No known significant effects or critical hazards.

AccuScript PfuUltra II RT-PCR Kit

SECTION 11: Toxicological information

Reproductive toxicity	: <input checked="" type="checkbox"/> N ase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Reaction Buffer PfuUltra II HS DNA Polymerase 10X PCR Reaction Buffer 40 mM dNTP Mix (10 mM each dNTP) Oligo (dT) Primer Random Primers 100 mM DTT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Other information	: <input checked="" type="checkbox"/> 100 mM DTT	Adverse symptoms may include the following: May cause skin sensitisation.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> AccuScript High Fidelity RT Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
PfuUltra II HS DNA Polymerase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
10X PCR Reaction Buffer Trometamol	Acute EC50 >980 mg/l Fresh water Acute NOEC 520 mg/l Fresh water	Daphnia Daphnia	48 hours 48 hours
100 mM DTT (R*,R*) -1,4-Dimercaptobutane-2,3-diol	Acute LC50 27000 µg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<input checked="" type="checkbox"/> AccuScript High Fidelity RT Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
PfuUltra II HS DNA Polymerase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
10X PCR Reaction Buffer Trometamol	OECD 301F Ready Biodegradability - Manometric	97.1 % - Readily - 28 days	30 mg/l	-

AccuScript PfuUltra II RT-PCR Kit

SECTION 12: Ecological information

	Respirometry Test			
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Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase-Free Water water	-	-	Readily
10X PCR Reaction Buffer Trometamol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
RNase-Free Water water	-1.38	-	Low
AccuScript High Fidelity RT Glycerol	-1.76	-	Low
PfuUltra II HS DNA Polymerase Glycerol	-1.76	-	Low
10X PCR Reaction Buffer Trometamol	-2.31	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
RNase-Free Water water	Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

AccuScript PfuUltra II RT-PCR Kit

SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

AccuScript PfuUltra II RT-PCR Kit

SECTION 15: Regulatory information

Label	:	☑ RNase-Free Water	Not applicable.
		AccuScript High Fidelity RT	Not applicable.
		10X AccuScript RT Reaction Buffer	Not applicable.
		PfuUltra II HS DNA Polymerase	Not applicable.
		10X PCR Reaction Buffer	Not applicable.
		40 mM dNTP Mix (10 mM each dNTP)	Not applicable.
		Oligo (dT) Primer	Not applicable.
		Random Primers	Not applicable.
		100 mM DTT	Not applicable.

Seveso Directive

☑ This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

United States : Not determined.

SECTION 16: Other information

☑ Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

AccuScript PfuUltra II RT-PCR Kit

SECTION 16: Other information

Classification	Justification
Not classified.	

Full text of abbreviated H statements

10X PCR	
Reaction	
Buffer	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
100 mM DTT	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

10X PCR Reaction	
Buffer	
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
100 mM DTT	
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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