

SAFETY DATA SHEET



AccuScript PfuUltra II RT-PCR Kit

Section 1. Identification

1.1 Product identifier

Product name : AccuScript PfuUltra II RT-PCR Kit

Part no. (chemical kit) : 600184

Part no. : Nase-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

Validation date : 10/28/2024

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

Identified uses : Analytical reagent.

Nase-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

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : Nase-Free Water While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

AccuScript High Fidelity RT This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

10X AccuScript RT Reaction Buffer While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Section 2. Hazards identification

PfuUltra II HS DNA Polymerase 10X PCR Reaction Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
40 mM dNTP Mix (10 mM each dNTP)	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Oligo (dT) Primer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Random Primers	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
100 mM DTT	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

AccuScript High Fidelity RT

H320 EYE IRRITATION - Category 2B


PfuUltra II HS DNA Polymerase

H320 EYE IRRITATION - Category 2B

10X PCR Reaction Buffer	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 2.8%
40 mM dNTP Mix (10 mM each dNTP)	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 5.7%

2.2 GHS label elements

Signal word

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

Section 2. Hazards identification

	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> 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.

2.3 Other hazards

Hazards not otherwise classified	: <input checked="" type="checkbox"/> 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

Substance/mixture	: <input checked="" type="checkbox"/> RNase-Free Water	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

Ingredient name	%	CAS number
<input checked="" type="checkbox"/> RNase-Free Water		
water	100	7732-18-5
AccuScript High Fidelity RT		
Glycerol	≥50 - ≤75	56-81-5
10X AccuScript RT Reaction Buffer		
Potassium chloride	<10	7447-40-7
PfuUltra II HS DNA Polymerase		
Glycerol	≥50 - ≤75	56-81-5

Section 3. Composition/information on ingredients

10X PCR Reaction Buffer		
Trometamol	≤5	77-86-1
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	≤2.3	82473-24-3
1-O-Octyl-β-D-glucopyranoside	≤1.3	29836-26-8
100 mM DTT		
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	≤3	3483-12-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact

: Nose-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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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

Section 4. First aid measures

Inhalation

: Nase-Free Water

medical attention if irritation occurs.

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

AccuScript High Fidelity RT

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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 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)

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.

Oligo (dT) Primer

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



Random Primers

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

100 mM DTT

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

Section 4. First aid measures

Skin contact	:  Nose-Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	AccuScript High Fidelity RT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	10X AccuScript RT Reaction Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	PfuUltra II HS DNA Polymerase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	10X PCR Reaction Buffer	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)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Oligo (dT) Primer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Random Primers	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	100 mM DTT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Ingestion	:  Nose-Free Water
AccuScript High Fidelity RT		Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
10X AccuScript RT 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.
PfuUltra II HS DNA Polymerase		Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities

Section 4. First aid measures

10X PCR Reaction Buffer	of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> Nose-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. Causes eye irritation. No known significant effects or critical hazards. Causes eye irritation. 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.
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Section 4. First aid measures

Inhalation	:	☑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	:
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	:		
		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.

Over-exposure signs/symptoms

Eye contact	:	☑Nase-Free Water	No specific data.
		AccuScript High Fidelity RT	Adverse symptoms may include the following: irritation watering redness
		10X AccuScript RT Reaction Buffer	No specific data.
		PfuUltra II HS DNA Polymerase	Adverse symptoms may include the following: irritation watering redness
		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.
		Inhalation	:
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.		

Section 4. First aid measures

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.


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.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: <input checked="" type="checkbox"/> Nose-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.

Specific treatments	: <input checked="" type="checkbox"/> Nose-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.



Section 4. First aid measures

	Oligo (dT) Primer	No specific treatment.
	Random Primers	No specific treatment.
	100 mM DTT	No specific treatment.
Protection of first-aiders	:  Nose-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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	:  Nose-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	:  Nose-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 5. Fire-fighting measures

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	<p>☒ Non-Flammable</p> <p>AccuScript High Fidelity RT</p> <p>10X AccuScript RT Reaction Buffer</p> <p>PfuUltra II HS DNA Polymerase</p> <p>10X PCR Reaction Buffer</p> <p>40 mM dNTP Mix (10 mM each dNTP)</p> <p>Oligo (dT) Primer</p> <p>Random Primers</p> <p>100 mM DTT</p>	<p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>In a fire or if heated, a pressure increase will occur and the container may burst.</p>
Hazardous thermal decomposition products	<p>☒ Non-Flammable</p> <p>AccuScript High Fidelity RT</p> <p>10X AccuScript RT Reaction Buffer</p> <p>PfuUltra II HS DNA Polymerase</p> <p>10X PCR Reaction Buffer</p> <p>40 mM dNTP Mix (10 mM each dNTP)</p> <p>Oligo (dT) Primer</p> <p>Random Primers</p> <p>100 mM DTT</p>	<p>No specific data.</p> <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides <p>No specific data.</p> <p>No specific data.</p> <p>Decomposition products may include the following materials:</p> <ul style="list-style-type: none"> carbon dioxide carbon monoxide sulfur oxides

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : RNase-Free Water

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.

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.

Special protective equipment for fire-fighters : RNase-Free Water

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.

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.


Section 5. Fire-fighting measures

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

:  Nose-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 spilled 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 spilled 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 spilled 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 spilled material. Put on appropriate personal protective equipment.

Oligo (dT) Primer

No action shall be taken involving any personal risk or without suitable training. Evacuate

Section 6. Accidental release measures

surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. 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 spilled material. Put on appropriate personal protective equipment.

If specialized 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".

If specialized 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".

If specialized 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".

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If specialized 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".

For emergency responders :  RNase-Free Water

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

Section 6. Accidental release measures

6.2 Environmental precautions	:  Nase-Free Water	Avoid dispersal of spilled 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 spilled 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 spilled 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 spilled 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 PCR Reaction Buffer	Avoid dispersal of spilled 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 spilled 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 spilled 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 spilled 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 spilled 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 materials for containment and cleaning up

Methods for cleaning up	:  Nase-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.


Section 6. Accidental release measures

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 of via a licensed waste disposal contractor.
100 mM DTT	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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

:  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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
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). Do not ingest. Avoid contact with

Section 7. Handling and storage

eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

: 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 mM each dNTP) 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.

Oligo (dT) Primer Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and

Section 7. Handling and storage

	<p>Random Primers</p> <p>100 mM DTT</p>	<p>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. 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. 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.</p>
<p>7.2 Conditions for safe storage, including any incompatibilities</p>	<p>: RNase-Free Water</p> <p>AccuScript High Fidelity RT</p> <p>10X AccuScript RT Reaction Buffer</p> <p>PfuUltra II HS DNA Polymerase</p>	<p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>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</p>

Section 7. Handling and storage

10X PCR Reaction Buffer

to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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 unlabeled 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 unlabeled 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 unlabeled 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 7. Handling and storage

7.3 Specific end use(s)

Recommendations	: 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	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: 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 available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
RNase-Free Water water	None.
AccuScript High Fidelity RT Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
10X AccuScript RT Reaction Buffer Potassium chloride	None.
PfuUltra II HS DNA Polymerase Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018).

Section 8. Exposure controls/personal protection

	TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
10X PCR Reaction Buffer Trometamol 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	None. None. None.
100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	None.

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

Appropriate engineering controls

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

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.

Individual protection measures

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: chemical splash goggles.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	:	RNAse-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.
		Color	:
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.		
Odor	:		
		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.
		Odor threshold	:
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.		
pH	:		
		AccuScript High Fidelity RT	8
		10X AccuScript RT Reaction Buffer	8.3
		PfuUltra II HS DNA Polymerase	8.2
		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.

Section 9. Physical and chemical properties and safety characteristics

Melting point/freezing point :

- ☑ RNase-Free Water 0°C (32°F)
- 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 (32°F)
- Random Primers 0°C (32°F)
- 100 mM DTT 0°C (32°F)

Boiling point, initial boiling point, and boiling range :

- ☑ RNase-Free Water 100°C (212°F)
- 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 (212°F)
- Random Primers 100°C (212°F)
- 100 mM DTT 100°C (212°F)

Flash point :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
AccuScript High Fidelity RT						
Glycerol	-	-	-	177	350.6	-
PfuUltra II HS DNA Polymerase						
Glycerol	-	-	-	177	350.6	-
100 mM DTT						
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230	-	-	-	-

Evaporation rate :

- ☑ 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.

Flammability :

- ☑ 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.

Section 9. Physical and chemical properties and safety characteristics

Lower and upper explosion limit/flammability limit : 100 mM DTT Not applicable.
 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.

Vapor pressure : Nase-Free Water 2.3 kPa (17.5 mm Hg) [room temperature]
 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapor Pressure at 20°C			Vapor 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	-

Section 9. Physical and chemical properties and safety characteristics

100 mM DTT						
water	17.5	2.3	-	92.258	12.3	-

Relative vapor density : RNase-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.

Relative density : RNase-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.

Solubility(ies)	Media	Result
	<input checked="" type="checkbox"/> 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.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
AccuScript High Fidelity RT			
Glycerol	370	698	-
PfuUltra II HS DNA Polymerase			
Glycerol	370	698	-

Decomposition temperature : **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.

Viscosity : **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 : **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.

Section 10. Stability and reactivity

10.1 Reactivity : **Nase-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.

Section 10. Stability and reactivity

	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	<ul style="list-style-type: none"> ☑️ Nase-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 	<ul style="list-style-type: none"> The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	<ul style="list-style-type: none"> ☑️ Nase-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 	<ul style="list-style-type: none"> Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	<ul style="list-style-type: none"> ☑️ Nase-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 	<ul style="list-style-type: none"> No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	<ul style="list-style-type: none"> ☑️ Nase-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 	<ul style="list-style-type: none"> May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

	Random Primers	materials. May react or be incompatible with oxidizing materials.
	100 mM DTT	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	RNAse-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
AccuScript High Fidelity RT Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X AccuScript RT Reaction Buffer Potassium chloride	LD50 Oral	Rat	2600 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	-

Irritation/Corrosion

Section 11. Toxicological information

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	-
10X AccuScript RT Reaction Buffer Potassium chloride	Eyes - 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	-

Sensitization

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)

Name	Category	Route of exposure	Target organs
10X PCR Reaction Buffer Trometamol	Category 3	-	Respiratory tract irritation
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	Category 3	-	Respiratory tract irritation
1-O-Octyl-β-D-glucopyranoside	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)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure

<ul style="list-style-type: none"> ☑ Nose-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 	<ul style="list-style-type: none"> Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Not available. Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
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Potential acute health effects

Eye contact

<ul style="list-style-type: none"> ☑ Nose-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 	<ul style="list-style-type: none"> No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards. Causes eye irritation. 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.
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Inhalation

<ul style="list-style-type: none"> ☑ Nose-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 	<ul style="list-style-type: none"> 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.
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Skin contact

<ul style="list-style-type: none"> ☑ Nose-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 	<ul style="list-style-type: none"> 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.
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Ingestion

<ul style="list-style-type: none"> ☑ Nose-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 	<ul style="list-style-type: none"> 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.
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Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	:	☑ Nose-Free Water	No specific data.		
		AccuScript High Fidelity RT	Adverse symptoms may include the following: irritation watering redness		
		10X AccuScript RT Reaction Buffer	No specific data.		
	Inhalation	:	PfuUltra II HS DNA Polymerase	Adverse symptoms may include the following: irritation watering redness	
			10X PCR Reaction Buffer	No specific data.	
			40 mM dNTP Mix (10 mM each dNTP)	No specific data.	
		Skin contact	:	Oligo (dT) Primer	No specific data.
				Random Primers	No specific data.
				100 mM DTT	No specific data.
Ingestion			:	☑ 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.
			:	☑ 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.

Delayed and immediate effects and also 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.

Section 11. Toxicological information

Potential chronic health effects

General	: <input checked="" type="checkbox"/> Nase-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.
Carcinogenicity	: <input checked="" type="checkbox"/> Nase-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.
Mutagenicity	: <input checked="" type="checkbox"/> Nase-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.
Reproductive toxicity	: <input checked="" type="checkbox"/> Nase-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.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> AccuScript High Fidelity RT Glycerol	12600	N/A	N/A	N/A	N/A
10X AccuScript RT Reaction Buffer 10X AccuScript RT Reaction Buffer Potassium chloride	46428.6 2600	N/A N/A	N/A N/A	N/A N/A	N/A N/A
PfuUltra II HS DNA Polymerase Glycerol	12600	N/A	N/A	N/A	N/A

Section 11. Toxicological information

10X PCR Reaction Buffer 10X PCR Reaction Buffer	258181.8	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

Other information : 100 mM DTT

Adverse symptoms may include the following: May cause skin sensitization.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
AccuScript High Fidelity RT Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
10X AccuScript RT Reaction Buffer Potassium chloride	Acute EC50 9.24 g/L Fresh water Acute EC50 1337000 µg/l Fresh water Acute LC50 9.68 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i> Algae - <i>Navicula seminulum</i> Crustaceans - <i>Pseudosida ramosa</i> - Neonate	72 hours 96 hours 48 hours
PfuUltra II HS DNA Polymerase Glycerol	Acute LC50 93000 µg/l Fresh water Acute LC50 509.65 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> Fish - <i>Danio rerio</i>	48 hours 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 - <i>Daphnia magna</i>	48 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
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	-	-

Section 12. Ecological information

10X PCR Reaction Buffer Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
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Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase-Free Water water	-	-	Readily
10X AccuScript RT Reaction Buffer Potassium chloride	-	-	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
10X AccuScript RT Reaction Buffer Potassium chloride	-0.46	-	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.

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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.

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: EDTA

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification	: <input checked="" type="checkbox"/> Nose-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. EYE IRRITATION - Category 2B Not applicable. EYE IRRITATION - Category 2B Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Composition/information on ingredients

Name	%	Classification
AccuScript High Fidelity RT Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
10X AccuScript RT Reaction Buffer Potassium chloride	<10	EYE IRRITATION - Category 2B
PfuUltra II HS DNA Polymerase Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
10X PCR Reaction Buffer Trometamol	≤5	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
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	≤2.3	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
1-O-Octyl-β-D-glucopyranoside	≤1.3	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
100 mM DTT (R*,R*)-1,4-Dimercaptobutane- 2,3-diol	≤3	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	<input checked="" type="checkbox"/> 10X PCR Reaction Buffer Ammonium sulphate	7783-20-2	≤3
Supplier notification	<input checked="" type="checkbox"/> 10X PCR Reaction Buffer Ammonium sulphate	7783-20-2	≤3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts	: The following components are listed: GLYCERINE MIST
New York	: None of the components are listed.
New Jersey	: <input checked="" type="checkbox"/> The following components are listed: GLYCERIN
Pennsylvania	: The following components are listed: 1,2,3-PROPANETRIOL
California Prop. 65	

Section 15. Regulatory information

This product does not require a Safe Harbor warning under California Prop. 65.

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

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
AccuScript High Fidelity RT EYE IRRITATION - Category 2B	Calculation method
PfuUltra II HS DNA Polymerase EYE IRRITATION - Category 2B	Calculation method

History

Date of issue/Date of revision	: 10/28/2024
Date of previous issue	: 09/27/2021
Version	: 7

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

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